DOCUMENT RESUME

ED 060 187 VT 014 637

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TITLE	The Next Step--A Comprehensive Program in Occupational Preparation and Placement. Interim Report.
INSTITUTION	Helena School District 1, Mont.
SPONS AGENCY	Bureau of Adult, Vocational , and Technical Education (DHEW/OE), Washington, D.C.
PUB DATE	Oct 71
CONTRACT	OEC-0-71-0684(361)
NOTE	195p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	*Career Education; *Curriculum Development; Developmental Programs; Dropout Prevention; Elementary Grades; Field Trips; *Inservice Education; Job Placement; Occupational Guidance; *Occupational Information; *Program Descriptions; Research Projects; Secondary Grades; Work Experience
IDENTIFIERS	Career Awareness; *Exemplary Project in Vocational Education

ABSTRACT

The purpose of the project was to find ways to bring about the implementation of more career education and occupational information in all levels of education. Specific objectives of this project include: (1) broadening occupational orientation at the elementary and secondary levels, (2) preventing dropouts, (3) developing opportunities for work experience, and (4) providing more vocational guidance services. Approximately 30 occupational and career units have been developed for use in Grades 1-6, and resource people from the community have been used extensively. The project during the first year involved approximately 65 teachers and 1,475 students. Field trips were used as a means of increasing the awareness of students of certain occupational opportunities. The project has a sound base from which to progress, community facilities have been used wisely, and project staff are in great demand to give presentations. More staff, better dissemination methods, opportunities for teachers to observe other programs, and increased library materials on career education are included in recommendations for the second year of operation. More than half the report consists of appended materials relating to the project. (Author/GEB)

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ED 060187

"THE NEXT STEP"

A Comprehensive Program in Occupational Preparation and Placement

Helena Public Schools

VT 014 637

1115 Roberts Helena, Montana 59601

INTRODUCTION

A changing work force is inevitable. Technological changes at this point in time have not only provided man with new methods and techniques for accomplishing work but also brought tremendous demands for new knowledge and skills. At the present time one very quickly realizes the obsolescense of the traditionally narrow job specific orientation toward a static job market.

It is often agreed that young adults are, in far too many instances, being required to choose between academic and vocational goals and thus make career decisions too early and without sufficient knowledge of their abilities, interests and the world of work.

On November 1, 1970 the Helena School District began the project "Next Step" in career education for grades K-14. Operating on the premise that the school is a potent force for the student in terms of his eventual choice of a career, activities were designed which would provide meaningful learning experiences and better clarify various aspects of the career choice process.

It is the intent of this first year report to show some of the problems, objectives and programs to which the Helena School District has addressed itself for the development of a comprehensive and sequentially planned effort for career education.

William A. Korizek
Assistant Superintendent of Schools
Director, Vocational Education

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INTERIM REPORT

Project No. 0-361-0169
Contract No. OEC-0-71-0684 (361)

"THE NEXT STEP-A Comprehensive Program in Occupational Preparation and Placement"

EXEMPLARY PROJECT IN VOCATIONAL EDUCATION
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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October 31, 1971

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5. Summary of the Report

(a) Time Period

1. November 1, 1970 to October 31, 1971

(b) Goals and Objectives

The specific objectives of this exemplary program are listed below and include projected time schedules for implementation.

1. To broaden occupational orientation at the elementary, junior high, and high school levels. (1970-1971)

2. To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps). (1970-1971)

3. To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs, and promote implementation thereof. (1971-1972)

4. To identify and develop new opportunities for work experience and cooperative education in several occupational areas. (1970-1972)

5. To give more, practical work experience to youth at various grade levels, and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit. 1971-1972)

6. To achieve a more realistic picture of job opportunities and to utilize such information in training for employment. (1971-1972)

7. To develop employability of students. (1971-1972)

8. To develop the assumption of responsibility for placement of students at whatever level they leave the school system. (1971-1972)

9. To create bridges between school and earning a living for young people who are still in school, who have left school either by graduation or drop out, or who are in post-secondary programs of vocational preparation. (1971-1972)

10. To make greater use of existing school facilities, especially during the summer months. (1971-1972)

11. To conduct inservice for District and other personnel to achieve the objectives of this proposal. (1971-continuous)

12. To bring general educators, vocational educators, State Department of Education staff, local school staff, teacher education

staff, Model Cities staff, staff specifically concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve the objectives of this proposal. (1971-continuous)

13. To improve the status, scope and image of vocational-technical education. (1971-continuous)

14. To design and consummate an objective and effective evaluation to be used for periodic modification of the Project. (1971-continuous)

15. To plan and promote expansion of activities to other districts (including private schools). (1971-1972)

(c) Procedures followed

The advice and support of the Helena School District, the State Office of the Superintendent of Public Instruction, Model Cities, The Helena Indian Alliance, the Montana State Advisory Council for Vocational Education and the Camps Coordinating Committees was most helpful in the exemplary program. Activities to begin demonstrating for the State of Montana and others what can be done when a school district provides such a program for elementary through post high grades. Emphasis and planning was given to such activities as:

(1) Broadening occupational orientation of elementary, junior high and high school levels.

(2) Broadening occupational aspirations and opportunities.

(3) Systematic identification of work opportunities for youth at various levels.

(4) Systematic training of youth for identified available jobs.

(5) Placement of students in jobs on a part-time basis prior to high school graduation wherein the student has significant productive responsibilities and receives financial and academic credit awards.

(6) Specific assumptions (by the elementary and secondary schools) of responsibility to develop some degree of employability in most students at both the elementary and secondary levels.

(7) Assumption, by the school, of responsibility for some appropriate placement for every student who leaves the school -- whether by graduation or otherwise (such as dropouts, handicapped persons, etc.).

This approach is particularly appropriate because all concerned have a direct primary interest in the students contemplated, have some needed expertise, have some resources needed, and recognize that their combined efforts may well produce a result greater than the mere sum of their separate efforts.

Present plans provide for the exemplary program under the administration of the Helena District to have such activities as the following (listed here for each objective of the project):

(a) To broaden occupational orientation at the elementary, junior high and high school levels.

To attain this objective a curriculum committee of staff from elementary and junior high levels are developing plans for curricular offerings at the respective levels in each school of the district. As time permits, offerings will be developed for the senior high level. Guidance personnel has been added to staffs,at the elementary levels where none existed. After review with advisory groups, the curriculum was implemented in the schools of the district.

Activities being used and contemplated for broadening occupation orientation at the elementary level include:

(1) Review textbooks on the elementary level to determine the kinds of occupational and vocational information presented and recommended revisions to include more vocational and occupational information.

(2) Attention of specific areas of social studies, science and math to include their relationship to vocations.

(3) Select audio-visual materials keyed to the elementary level vocational offerings.

(4) Set up role playing situations broadened to include all subject areas.

(5) Visitations of key personnel, community services, to the classes to bring a picture of the various occupational areas to the classroom by someone who can relate the vocational area to the children.

(6) Include world-of-work activities in art, drama, and other cultural activities. This would be accomplished by presenting graphic representations of how people work and what are the factors which make work enjoyable and rewarding.

(7) Devise a review process to determine the validity of information being presented year after year.

(8) Develop a teaching activity bank of occupational

materials and lesson plans available to all teachers in each curricular area.

Activities being used and contemplated for the junior high level include:

(1) Include units within each area of the junior high curriculum to include occupational information and career development experiences in math, English, science, and social studies offerings.

(2) Strengthen and coordinate programs of exploratory nature and industrial arts type experiences.

(3) Broaden group vocational guidance activities. Counselors with a background in vocations and careers will be provided to coordinate those activities.

(4) Provide opportunities for individual exploration through reading, audio-visual materials, simulated work activities.

(5) Provide mobile labs for each occupational cluster; mechanical, electrical, clerical, agriculture - related, engineering-related and medical to provide hands-on experiences by junior high students.

(6) Provide and develop a homeroom unit to work with the youth in cognitive activities to bring understanding of selected elements of the world of work.

(7) Guidance, testing and talent identification programs in order to bring together the elements of interest, attitudes, and aptitudes in career decision-making.

(8) Develop a library of information to allow the individual opportunity to explore occupations, individually and in groups, as well as counselor directed exploration.

(9) Following the area of talent identification develop a program wherein the student will be able to compare his identified talents with opportunities with the world of work.

Activities contemplated at the senior high level in order to obtain this objective include:

(1) Develop and include occupational information and career development experiences in all subject areas to provide maximum exposure to attending students.

(2) Provide information to all students about methods, policies, requirements and procedures for making job application;

entering into apprenticeship, importance of keeping a personal inventory of dates and employment activities as a life-long record; and the effects of the conduct of one's personal life on future opportunities in the world of work.

(3) Develop a released time schedule for educational and vocational teaching personnel for reciprocal visitation of learning activities.

(4) Develop group guidance activities for decision-making and individual development related to the world of work. This must be done for those students lacking or developing a lack of motivation for continuing school.

(5) Increase student alertness to take advantage of classes offered in the regular vocational education program.

(6) Establish vocational cooperative programs at the senior high school level.

(7) Develop guidance materials for all students as a part of the student services that each may establish objectives upon leaving school at all grade levels.

(8) Assist all students in decision-making to provide equal opportunity in planning career objectives with emphasis on planned successes in the world of work for non-college bound as well as college bound students. This decision-making will involve group and individual assistance through guidance and counseling.

(9) Continue and reinforce the talent identification of all students to closely support inherent individual abilities and motivations being developed.

(10) Reinforce those activities directed toward the handicapped and disadvantaged and continue to develop new methods and assistance which will provide aids in meeting their goals.

(11) Provide a staff member who will be in direct charge of relocating the dropout into cooperative programs, on-the-job training, direct employment coupled with evening high school credit classes and guidance into the armed services.

(12) Develop evening classes in vocational education aimed at training or upgrading skill development for current dropout students and encourage the use of them.

(b) To broaden occupational aspirations and opportunities for youth (including those who have academic, socio-economic or other handicaps).

Thus far, guidance staff has been employed at the elementary level and with occupational orientation. Additional staff will be employed to include placement, follow-up of students, to counsel dropouts back into educational stream; to provide coordinated group guidance sessions; to involve labor, industry, business and other agencies; to develop a job bank; to expand the present vocational and occupational information bank; to provide for the development of self-concept; and to develop an occupational orientation program for K-A (kindergarten through the area school).

Activities being used and contemplated to achieve this objective include:

(1) Identify youth who have academic, socioeconomic or other handicaps.

(2) Plan, develop and implement programs which will prepare such persons for employment.

(3) Identify job opportunities for disadvantaged or handicapped persons.

(4) Work cooperatively with employers in developing new job opportunities which may be filled by disadvantaged and handicapped persons.

(5) Provide exposure of students to various job clusters in an effort to enhance their interests and aspirations regarding occupational choice.

(6) Work cooperatively with guidance personnel, labor and the employer to give the student a better image of himself and develop acceptance of such students by the population of the world of work.

(7) Develop resource materials regarding job, labor and employer demands of various firms and for various occupations.

(8) Work closely with the employer and the student to help the new employee become adjusted to his job in order to better help him achieve success.

(9) Work cooperatively with other agencies and personnel whose responsibilities are for disadvantaged and handicapped persons. Such agencies and personnel include State Supervisor of Vocational Education Special needs, State Director of the Development of Vocational and Occupational Skills, guidance personnel, Model Cities,

Helena Remedial and Diagnostic Center, Concentrated Employment Program, Florence Crittendon Home for Unwed Mother, the Mountain View School for girls, the Helena Indian Alliance, Rocky Mountain Development Council, Division of Vocational Rehabilitation and others.

(c) To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventive and remedial programs and promote implementation thereof.

A new staff position will be filled and the staff person given the responsibilities inherent in the statement of this objective. The information so obtained will be given to appropriate curricular committees to guide their work accordingly.

(d) To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

To attain this objective, one staff person will contact a wide variety of business, industrial, professional and other agencies in the area served by Helena schools to identify, promote, and nurture job placement opportunities for secondary students. This staff person will also determine, in conference with prospective employers, the desired qualifications and abilities which students to be placed should possess, and this information will be used as a basis for the work of curriculum planning committees and the identification of skill clusters.

Activities being used and contemplated to achieve this objective include several occupational cluster areas such as:

a. Agriculture and agriculture-related.

b. Health occupations.

c. Ornamental horticulture.

d. Mechanics.

e. Building construction.

f. Engineering aide.

g. Clerical.

h. Food services.

i. Maintenance.

j. Social service.

k. Retailing and marketing.

The local district will employ a qualified coordinator to cooperatively plan, implement and conduct such programs with labor and

management. The institutional phase of this training will be on an intensive, short-term basis.

(e) To give more, practical work experience to youth at various grade levels, and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

A staff member will be given responsibility to match students with job opportunities and to promote the attainment of this objective.

(f) To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

A staff member will be given responsibility and necessary assistance to plan procedures and to accomplish this objective.

(g) to develop employability of students.

Curriculum committees and other staff will continue planning responsibilities and assignments calculated to achieve this objective. Appropriate inservice training of staff will be continued.

(h) To develop the assumption of responsibility for placement of students at whatever level they leave the school system.

Project and other school district staff, expecially the curriculum committees at the elementary, junior high and high school levels will focus upon planning to achieve this objective.

Activities contemplated to achieve this objective include:

(1) To develop a staff position to carry out the responsibilities of student job placement.

(2) To develop and implement criteria and a system for satisfying the needs of this objective.

(3) To work cooperatively with management and labor to place students on jobs which are compatible with their training and abilities.

(4) To work cooperatively with management and labor and school personnel to identify job opportunities.

(5) To assume a follow-up responsibility to work with the student and employer during the initial months of the student's employment and until he is adjusted to successful continuous employment.

(6) To develop resource materials regarding various job and employer demands. These materials will be used as a basis to place students on jobs with employers so that they may be more able to succeed.

(i) To create bridges between earning a living for young people who are still in school, and those who have left school either by graduation or dropout, or who are in post-secondary programs of vocational preparation.

The activities of objectives "A" through "H" will contribute to the attainment of this objective.

(j) To make greater use of existing school facilities, especially during the summer months.

Project staff will in some cases be on duty during summer and other "vacation" periods. They will be conducting such activities as training for specific jobs. Some of this may be pre-employment and other concurrent with employment. Some of this training will be appropriately given in classrooms and shops at various schools in the district.

Activities contemplated to achieve this objective include:

(1) Plan courses based on the actual employment opportunities available to youth. This would mean that there would be courses available in such areas as : lawn mowing and mower care, car washing, flower care and other work opportunities keyed to the needs of youth.

(2) Plan, as needs are developed, to add hours to the school day at the Helena Vo-Tech Center in order to provide actual voca-tional education training at all levels. This would enable youth and adults to develop entry and upgrading skills as needed.

(3) Provide for means of exploring the feasibility of providing extra school activities related to the world of work, on an exploratory basis, for youth at all levels.

(k) To conduct inservice training for district and other personnel to achieve the objectives of this proposal.

Some of the curriculum committee work such as described under objectives "A", "C" and "G" will be done during inservice, or will be the focus or basis for inservice for other staff of the district.

(1) To bring general educators, vocational educators, Office of the Superintendent of Public Instruction staff, local school staff, teacher education staff, Model City staff, staff specifically concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve

the objectives of this proposal.

The personnel of advisory groups and of various cooperating agencies have been involved in the activities of this proposal.

Vocational education and the objectives of this project specifically, are being implemented and conducted through cooperative effort between the local school district and the various manpower and other agencies of the community and state.

Cooperating agencies include:

(1) Office of the Superintendent of Public Instruction.

(2) Cooperative Area Manpower Planning System Committee.

(3) Montana Employment Security Commission.

(4) Helena Indian Alliance.

(5) Helena Model City.

(6) Rocky Mountain Development Council.

(m) To improve the status, scope and image of Vocational-Technical Education.

Curriculum committees and inservice workshops have noted that occupational vocations require ability and excellence as do the professions, that the definite majority of students will not receive a baccalaureate degree, that this year graduates from many four-year institutions faced an increasingly unfavorable job market, that vocational graduates have an earning potential which is quite favorable in comparison, etc. The needs of society, and the prospects for, a productive career will be analyzed.

(n) To design and consumate an objective and effective evaluation to be used for periodic modification of the project.

Section 5, part 5(E) Evaluation, which follows is intended to fulfil all requirements to attain this objective.

(o) To plan and promote expansion of activities to other districts (including private schools).

Other activities contemplated to achieve this objective include:

(1) Speaking engagements with:

(a) Parent-teacher association at local schools.

(b) Service clubs.

(c) Local and state school association meetings (H.E.A.;M.E.A.;MUA: MCLA: State school Boards Association; and Office of the Superintendent of Public Instruction called meetings).

(d) News media concerning current progress of program.

(2) Invitational seminars:

(a) Surrounding district superintendents in immediate vicinity.

(b) State Association of Vocational-Technical Centers (composed of Superintendents and directors of vocational education from Helena, Butte, Billings, Great Falls and Missoula).

(3) Promote expansion of activities through dissemmination of materials such as evaluation reports of program, developed classroom materials; use of ERIC materials; developed audio-visual materials to those districts developing interest in this program.

(4) Loan or released time of those key personnel who may make a direct contribution in another district on a short term basis (counselors, teachers, project supervisors).

(5) Publicize information statewide by utilizing part of time for recruiting trips for post-secondary center to visit about this program with district superintendents.

(d) Results; Accomplishments

Immediately following official confirmation from the U. S. Office of Education of the "Next Step" project approval, the beginning phase of the project was implemented. Some strategies had been developed for initiating the project prior to funding notification. These strategies provided a firm base for initial project activities in the following:

(1) Personnel and administrative procedures for the exemplary project was employed on December 1, 1970. The logistics of activating the project included an ammendmentof the budget to the contract figure, accounting procedure for project funds, abstract data for U.S.O.E. distribution, completion of O. E. Form 5141, negotiation of third party evaluation contract, ordering ERIC materials, visit to observe career education programs in three schools and develop tentative time schedules for project activities.

(2) Staff selection and in-service training activities began after the Christmas vacation recess and included orientation meetings with the instructional staff of the eleven (11)

elementary schools of the district, selection of sixty (60) volunteer elementary teachers, inservice for selected teachers and total administrative staff, ten (10) junior high teachers and home economic staff. Two(2) elementary counselors were employed on August 24, 1971

(3) Selection and development of advisory committees included community advisory committee (25 members), principals (12 members), counselors (11 members), building teacher representatives (15 members).

(4) Program and curricular development was initiated primarily in grades 1-6 and involved six (6) to nine(9) week occupational units with hands-on experience,resource people and job observation field trips. Some work was done prior to the end of the 1970-71 school year with junior high school students.

(5) Community activities involved presentations to civic groups, college classes, parent-teacher organizations, Montana Personnel and Guidance Association, neighboring school districts, Montana Vocational Guidance Association, Montana State Advisory Council for Vocational education and the local television station KBLL.

(e) Evaluation

The third party evaluation contract (Appendix A) was successfully negotiated with Dr. Allen Lee, Oregon State Higher Education System, Salem, Oregon. Dr. Allen Lee prepared and submitted to the project staff a "Plan for Third-Party Evaluation" (Appendix B) and "opinionnaire for Identifying Perceptions of Career Education" (appendix C) for reveiw and discussion. The evaluation material and procedure was reviewed with each advisory committee and modification was made. The opinionnaire was presented to all of the committees as well as an additional community group of thirty five (35) people and the entire teaching staff of the Helena school district. Base line data was gathered with regard to school employee's and community members perceptions of what ought to occur in career education.

(f) Conclusion and Recommendations

1. The project thus far has a sound base from which to progress, particularly at the elementary where the attitude and philosophy regarding career education is remarkably good.

2. A wealth of occupational curriculum units have been developed, implemented, reproduced and made available to the entire elmentary staff of each school.

3. Development of numerous advisory committees has provided excellent opportunity for communication within the schools and community.

4. Good utilization of community facilities and resource people have been made by project teachers as major components in the occupational units.

5. Requests for project staff to give presentations and disseminate information regarding the project activities have been for greater than originally projected. As a result of these opportunities we have been able to reach people who represent a large geographic area.

6. The hiring of additional staff is a critical need at this point. As more staff programs develop consistent with the project, activities will progress at an accelerated rate.

7. There is need to finalize planning for the dropout and potential dropout.

8. Placement efforts need to begin as soon as possible with training plan for each student as an integral componet of the activity.

9. Library materials on career education need to be expanded for all grade levels.

10. Dissemination of more materials to instructional staff is necessary as well as continued in-service and particularly the development of the "cluster" concept for the ten, eleven and twelfth grades.

11. There is need for teachers to have an opportunity to observe other programs currently being conducted and share our experiences with others.

12. Unexpended money from the first year of operation should be allowed to be carried over in the second year.

13. The "Next Step" project should be endorsed for a second year as the results thus far are viewed as being very encouraging.

6. Body of Report

(a) PROBLEM:

Following the Smith-Hughes Act, vocational education enjoyed a great deal of excellence. After a few decades, such signs as rigidity, obsolescence, deficiencies, a lack of sensitivity, a lack of relevancy, a lack of creativity and other criticisms became common. Society today is often characterized by student dissent (at many levels), by strikes, by sit-ins, by changing mores, by new freedoms, and by signs of rapid evolution, if not revolution. Education has long been given credit for much of the greatness of our Nation, and is now increasingly under attack for existing ills.

The 1970 graduating classes from traditional four-year colleges and universities face a unique employment market - or lack of a market. Concurrently, there are favorable signs of placement for graduates from community colleges and other two-year post-high institutions training programs.

Nationwide, unemployment is increasing. Many high school youth needing and wanting employment after school, on week-ends, and during vacation periods are frustrated. At the same time, business and industries indicate that they would like to hire such people, if only "they know how to do a job". The criticism is that the youth know nothing about the job at the outset, they need part-time temporary employment, it takes awhile to train them, and by that time they are gone. Across the Nation, also, the voting taxpayers have demonstrated wide-spread reluctance to approve budgets for education. There is talk (but little more) of using school resources (physical and staff) on a twelve-month basis.

Traditionally, the secondary schools of this Nation have been college-preparatory in nature, even though much lip-service has been given to so-called "comprehensive high schools". In fact, we have very few truly comprehensive high schools. The public schools, by their staffing patterns and other actions have done a comparatively excellent job in placing the perhaps 30% (or less) of their graduates who will attend and graduate from a four-year college. The public schools have not, however, in general, assumed responsibility for either placing the non-college bound students or developing employability. The Helena Elementary schools now have two elementary counselors and have started to assume this responsibility.

The Helena School District is utilizing existing research results to develop an exemplary comprehensive program specifically intended to provide a broad range of occupational orientation at the elementary, junior high and secondary school levels; to implement the assumption (by Helena School District Number One) of responsibility for developing some degree of employability for every student (especially, but certainly not restricted to youth who have academic, socio-economic, or other handicaps), and to improve the placement of all students who leave school (including dropouts as well as graduates).

Thus, the potential for participation would be approximately 8,350 students. There are no private or non-public schools in this area as all parochial schools were closed for school opening September, 1969. Approximately 1,000 students were absorbed into the public system on that date.

One of the initial phases of this project was to review the existing curriculum in the Helena School System and to recommend changes or alternatives which would bring about the implementation of more career education and occupational information in all levels of education. The following research represents materials which have been received, ordered or will be ordered for future use.

1. Robert L. Darcey. AN EXPERIMENTAL JUNIOR HIGH SCHOOL COURSE IN OCCUPATIONAL OPPORTUNITIES AND LABOR MARKET PROCESSES FINAL REPORT. Ohio University

   This is an experimental program to provide the schools with instructional materials, evaluations, instruments and/or realistic classroom educational programs for bridging the gap between school and work. (Junior High School Level)

2. Howell, Kay M. TEACHING VOCATIONAL AND CITIZENSHIP EDUCATION IN SOCIAL STUDIES FINAL REPORT. Michigan State University

   This was a pilot project designed to determine if there was evidence to support an experimental program for comparison with the current, conventional programs of 9th grade social studies in the East Lansing Michigan Schools. The experimental program was one in which students were introduced into the world of work.

3. CAREER DEVELOPMENT ACTIVITIES, Grades 5, 6, 7, Abington School District, Pennsylvania, 1968. (ED 022 219 MF - .76 HC - 7.40 146 p.)

4. Sherman, Vivian S. TRIAL AND TESTING OF AN EXPERIMENTAL GUIDANCE CURRICULUM. FINAL REPORT. BR-7-8091, American Institute for Research in Behavioral Sciences, 1967 (ED 020 554 MF- .75 HC-6.90 136 p.)

   Innovative vocational guidance curriculum materials were designed to increase self-understanding and motivation relative to career exploration and planning.

5. Agan, R.J. THE DEVELOPMENT AND DEMONSTRATION OF A COORDINATED AND INTEGRATED PROGRAM OF OCCUPATIONAL INFORMATION, SELECTION AND PREPARATION IN A SECONDARY SCHOOL. FINAL REPORT BR-5-0027. Kansas State University, Manhattan, 1968 (ED 022962:MF-1.75 HC-2095, 417 p.)

   These instructional materials ("Commonalities in Occupations," 11th year and "Experiences in Occupations," 12th year) are

for teacher use in conducting inter-disciplinary occupational education courses for high school juniors and seniors.

6. TEACHER'S GUIDE TO: SELF UNDERSTANDING THROUGH OCCUPATIONAL EXPLORATION (SUTOE). Oregon State Dept. of Education, Salem, 1968 (ED 024 965: MF-1.00, HC-10.00, 198 p.)

   SUTOE is a one year course designed to assist students with a variety of workers on the job through classroom and extra classroom acti/ities.

7. Cook, H.E., "Vocational Guidance Materials: A Survey for Teachers, "American Vocational Journal, 1968, 13, 25-28.

   Materials which may be of use to planners of career exploration programs are listed in this article. Of specific interest are the following:

   Curriculum Units, Robert L. Frank, University of Northern Iowa, had graduate students in an NDEA Institute develop curriculum units for grades K-12. The attempt is to provide a guide to help classroom teachers relate to the world of work through the ongoing curriculum. "The focus is placed on the human, the personal area of each job, instead of the position itself," Dr. Frank says. Materials include lesson plans, bibliographies, and lists of motion pictures and filmstrips, for all grades. This work is still in the experimental stage; however, the materials show great promise for general use and serve to illustrate the concern that educators have in providing career development materials and processes for all school children.

   Countdown to the 70's, a TV series for upper elementary grades, is scheduled for the 1968-69 school year. Initial programs include health careers and careers in education. A teacher's guide, vocabulary list, and glossary are among materials used to reinforce telecasts. Children's interest and knowledge, the national and local occupational outlook and the availability of training facilities were criteria for selection of the occupational areas to be telecast.

   When I Grow Up, a 25-minute operetta by L. Lenski, with music by C. R. Bulla, can be used to advantage in grades K-3. Teachers report that it gives children the opportunity to develop an awareness of the different work-roles, and in some instances improves their self-concept. One teacher adapts it to her class no matter what its size. Carpenter, nurse, fisherman, clown, soldier, cowboy, and farmer are the occupations portrayed.

8. Hansen, L.S. Theory into practice: a practitioner looks at career guidance in the school curiculum. The Vocational Guidance Quarterly, 1967, 16, 97-103.

A framework for school personnel on which to build career guidance programs is presented in this article. Selected career exploration activities were presented.

9. McDaniels, C. Youth: to young to choose: The Vocational Guidance Quarterly, 1968, 16, 242-249.

The author raises the question about youth being too young to choose. His answer is that youth are not too young and much should be done in the school to encourage career development.

10. Purcel, David J., and Klaurens, M., "The Guidance Objective in Industrial Arts,"American Vocational Journal, 1968, 43, 17-18.

This article discusses techniques for integrating career development concepts into the industrial arts program to provide meaningful exploratory experiences for youth. It suggests that industrial arts should provide students with opportunities to (1) evaluate their interests, abilities, values, needs, and other personal characteristics as they relate to occupational roles; (2) explore the psychological meaning of work and its value in the human experience; (3) explore broad occupational areas in terms of opportunities, potential satisfactions, required roles of workers, and other related considerations; (4) develop an awareness that the individual's role in work is tied to the well-being of the community; (5) exhibit planning ability in striving to achieve occupational goals and objectives; and (6) develop the concept that they are productive persons in a work-centered society. To accomplish this, the article suggests a number of techniques which could be used to help students appraise themselves and the world around them.

11. Smith, E.E., "Innovative Ideas in Vocational Guidance," American Vocational Journal, 1968, 13, 19-22.

The author summarizes a number of programs which have implications for career exploration programs. Among them are:

Career Development Activities for Grades 5, 6, and 7. Abington School District, Abington, Pennsylvania; Emore E. Pogar, Director.

The guidance department of this southeastern Pennyslvania school district initiated a project designed to develop learning experiences and guidance techniques in the area of career choice which could be implemented through the existing curriculum and guidance program.

Working from the assumption that the school is a potent force for the student in terms of his ultimate choice of a career, they designed activities that would provide meaningful learning experiences for the student and at the same time focus on some of the heretofore nebulous aspects of the career choice process.

After a review of the literature in the area of career development, three themes (interest, change, values,) were selected and one was assigned to each grade level, as follows:

Grade 5: How Our Interests Develop and Their Importance in Our Lives.
Grade 6: Changes That Are Taking Place, Decisions Which Are Made, and How They Affect Our Lives.
Grade 7: Our Values--How They Influence Our Decisions and Our Lives.

The themes provided the focus for the activities of each grade but were not necessarily a limiting activity (a card game, an interest inventory, a two-act play, a simulated panel discussion, tapes, skits and roleplaying situations) were developed for each theme.

Perhaps the most striking feature of this endeavor was the ability of the project personnel to identify a specific need--a viable program of activities in the vocational aspects of guidance for children in the intermediate grades--then successfully bridge the gap between research and the application of research findings. The active student involvement and the joint efforts by teachers and counselors are other significant features of the Abington project.

12. Project PACE (Preparing, Aspiring, Career Exploration), Dayton City School District; William H. Goff, Director.

The PACE Project was implemented during the 1966-67 school year to determine if measurable increments in occupational choice could be achieved in predetermined situations at three grade levels in two elementary schools with socio-economically different student populations. A secondary purpose of this project was to develop, for future elementary school counselors, a role model having

a developmental framework instead of a problem-centered orientation.

The program plan was developed by two counselors for the three grade levels (second, fourth and sixth) in each of the elementary schools. All available resource materials were assembled and a teaching outline was written prior to the beginning of the more formal aspects of classroom work.

The instructional plan for each school and each grade level was implemented in three different ways in an effort to determine the effectiveness of the various approaches. The research design called for three experimental groups and one control group. The measured effectiveness of each group--the teacher-only group, the counselor-only group, and the teacher-counselor group-- was then analyzed.

Project PACE was continued for a second year on an experimental basis. After the thorough evaluation now underway is completed, a curriculum guide of activiites designed to enhance the vocational awareness of students will be prepared for use by teachers and counselors in the elementary schools of Dayton.

13. Books

a. Adams, J. F. (Ed.), UNDERSTANDING ADOLESCENCE. Boston: Allyn and Bacon, Inc. 1968.

This book contains several excellent papers on adolescence, including a chapter by Henry Borow on "The Adolescent in a World of Work".

b. Amos, W. E. and Grambs, J. D. (ED.), COUNSELING THE DISADVANTAGED YOUTH. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1968.

A number of excellent papers are contained in this volume. Several in particular focus on the relationship of disadvantaged youth to the world of work.

c. Gilbert, H.D., CHILDREN STUDY AMERICAN INDUSTRY. Dubuque, Iowa: William C. Brown Company, 1966.

The purpose of this resource book is to aid elementary school teachers in directing learning activities that involve the tools, machines, materials, and processes of industry.

d. Hill, G. E. and Luckey, E.B. GUIDANCE FOR CHILDREN IN ELEMENTARY SCHOOLS. New York: Appleton-Century-Crafts, 1969.

Chapter 10 in this book is an excellent source for concepts and ideas concerning career exploration programs in elementary schools. An excellent bibliography of related books and resource materials completes the chapter.

e. Norris, W. OCCUPATIONAL INFORMATION IN THE ELEMENTARY SCHOOL. Chicago: Science Research Associates, 1963.

This book contains lists, books and pamphlets, films, recordings, poems, and songs which can be used in the elementary grades. Suggested lesson plans also are provided.

f. Scobey, M.M. TEACHING CHILDREN ABOUT TECHNOLOGY. Bloomington, Illinois: McKnight and McKnight, 1968.

Part I of this book presents a philosophical background concerning the field of industrial arts. Part II examines the characteristics of American industry. This examination is organized in terms of human activities. Part III offers suggestions to help a teacher provide curriculum related experiences.

g. Tennyson, W. W., Soldahl, T. A., and Mueller, C. THE TEACHER'S ROLE IN CAREER DEVELOPMENT. Washington, D. C. National Vocational Guidance Association, 1965.

This booklet is addressed to teachers as a guide to their work in developing and teaching units on the world of work.

14. Eric Documents (Appendix L.)

(b) Objectives and Accomplishments

(1) Objective:

To broaden occupational orientation at the elementary, junior high, and high school levels.

Accomplishments:

(a) Approximately thirty (30) occupational and career units have been developed for use in grades one (1) through six (6). These units have been patterned after similar materials developed by the Marieta, Georgia schools. These materials have been reproduced and are available to every elementary teacher (Appendix D)

(b) The use of resource people from the community is a very important part of each unit. Community people who were used came from the health occupations, food service, forestry, agriculture, weather bureau, fish and game, soil conservation and business. Cooperation with a local civic organization has resulted in a directory for use by the school district. (Appendix E)

(c) During the first year of operation the project had approximately sixty five (65) elementary and junior high school teachers who participated in the career education activities. These activities involved 1,475 students. (Appendix F)

(d) Job observation field trips served as an important method for increasing the awareness of students in terms of studying first hand the various locations of certain occupational opportunities and also job characteristics as these actually exist in a real world of work situation. Students were involved in thirty three job observation field trips.

(e) The project supervisor met with the entire instructional staff of eleven (11) elementary schools, two (2) junior high schools, one (1) high school and one (1) vocational-technical center for the purpose of orientation for the implementation of a career education concept for the district.

(2) Objective:

To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps.)

Accomplishments:

(a) Through a coordinated effort with the School District Diagnostic and Remediation Center, it was possible to identify students at each of the grade levels in terms of the handicapping condition each student has. It was necessary to have this data so that programs could be developed to fit their needs. (Appendix G.)

(b) At the elementary level thirty (30) mentally retarded students and sixteen (16) students enrolled in the disabled learning class were involved in food service and health occupation units.

(c) Data was also obtained from the County Welfare and Model Cities agencies regarding socio-economic handicapped students. In the Helena School District there are approximately two hundred and fifty indian students. In most instances these students are socio-economically handicapped. (Appendix H.)

(3) Objective:

To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs, and promote implementation thereof.

Accomplishments:

(a) Due to lack of staff and the time factors only preliminary plans have been completed for this phase of the project. Data is currently being prepared from the school census reports for future computer tabular printouts.

(b) Project staff will be employed by January 1, 1972 for the purpose of accomplishing the objective during the second year of the project.

(4) Objective:

To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

Accomplishments:

(a) Emphasis will be given to work experience placement during the second year of the project. A staff member will be employed to assume full responsibility for this activity. Staff will be employed January 1, 1972.

(b) Through cooperative efforts of the post-high school coordinator there have been approximately fifty (50) business contacts made with possibly thirty five (35) potential placement opportunities. (Appendix I.)

(5) Objectives:

To give more, practical work experience to youth at various grade levels, and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

Accomplishments:

(a) As soon as placement staff is hired emphasis will be given to the activity during the second year of operation.

(6) Objectives:

To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

Accomplishments:

(a) Project staff have held discussions with personnel from the Montana Manpower Planning Advisory Council. The council has agreed to cooperate with the district and provide information regarding manpower needs.

(b) Copies of "Montana Manpower Planning" have been distributed to nine (9) social studies instructors for use in the ninth grade career education program. This publication was provided by the Manpower Council and provides an analysis of various occupations and projections in terms of manpower needs through 1975.

(c) Discussions have also occurred with local employment service personnel regarding local employment opportunities. This information is of use in planning curriculum.

(7) Objectives:

To develop employability of students.

Accomplishments:

(a) Definitions are currently being considered regarding what grade levels, curriculum and types of activities which will contribute to employability.

(b) Thirty (30) sixth grade students have had some sales experience in operating a small school store on a profit and loss basis. This type of activity has demonstrated potential for development of employability.

(8) Objective:

To develop the assumption of responsibility for placement of students at whatever level they leave the school system.

Accomplishments:

(a) Some planning has been achieved toward the development of a formal "position paper" for the establishment of a board of trustee policy for the entire school district. It is currently projected that this will be completed by February, 1972.

(b) Within the district efforts will be made for each school to develop a similar "position paper".

(9) Objective:

To create bridges between school and earning a living for young people who are still in school, who have left school either by graduation or drop out, or who are in post-secondary programs of vocational preparation.

Accomplishments:

(a) Efforts to achieve this objective will be provided as soon as staff is hired to develop placement opportunities and program for the drop out.

(10) Objective:

To make greater use of existing school facilities, especially during the summer months.

(a) Ten (10) sixth grade boys utilized the building trades shop at the Helena Vocational-Technical Center for one (1) hour per week for eight (8) weeks to complete a construction unit. This activity was conducted during the regular school year and suggested some opportunity for expansion of this type of activity.

(b) More planning will result with more complete data regarding facility availability during the academic year and information regarding dropouts and potential dropouts.

(c) Considerable emphasis will be given for the summer of 1972.

(11) Objective:

To conduct inservice for district and other personnel to achieve the objectives of this proposal.

Accomplishments:

(a) Meetings were held with school personnel for in-service activities during the first year of the project and represent the following man hours of participation:

1. Principals 185
2. Counselors 81
3. Teachers 1920
4. Building representatives (teachers).1425
5. Social Studies teachers (Ninth Grade) 81
6. Home Economics teachers 24

(b) The principals, counselors and building representative teachers were involved in a critique of the initial evaluation instrument.

(c) Second year in-service plans will involve school personnel in the development of a "position paper" for the district and individual schools.

(d) Travel plans are currently being developed for key teachers to visit other projects.

(e) Reports regarding project activities are continuously given to the State Department of Public Instruction, administrative staff and Board of Trustees.

(12) Objective:

To bring general educators, vocational educators, State Department of Educa ion staff, local school staff, teacher education staff, Model Cities, staff, staff specifically concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve the objectives of this proposal.

Accomplishments:

(a) Orientation meetings were conducted for each school in the district for the purpose of acquainting the local staff with "Next Step" career education concepts and projected plans for implementation. Building representatives have been selected to represent each building in the district. This procedure

enables the project staff to better schedule activities as they relate to building programs.

(b) An Advisory Committee has been established from the State Department of Public Instruction (Appendix M). Three (3) meetings were conducted primarily for assisting with the evaluation phase of the project as well as orientation to the overall project design and implementation procedures.

(c) Representatives from three (3) teacher preparation programs met with the project staff once for orientation of the project and also to respond to the evaluation instrument. At this time there was also discussion regarding the use of interns as a part of the project activities.

(d) The Community Advisory Committee and Community Evaluation Committee were arranged so that a good cross section of local businesses and governmental agencies were included in the membership. The participation of the various committees has proven to be very beneficial in terms of articulation of the project activities to the community (Appendix N).

(13) Objective:

To improve the status, scope and image of vocational-technical education.

Accomplishments:

(a) The majority of meetings with advisory committees, school staff and State department personnel have been held at the Helena Vocational-Technical Center. In most instances participants have had a chance to observe the variety of training opportunities which this facility offers.

(b) Many students from grades two (2) through ten (10) utilize the Vocational-Technical Center for field trip visits.

(c) Instructional materials from some of the various shop areas are loaned to schools for use in the career education units.

(d) Open House is an annual event at the Vocational-Technical Center which attracts many parents and students.

(14) Objective:

To design and consummate an objective and effective evaluation to be used for periodic modification of the project.

Accomplishments:

(a) Efforts are made at the completion of each career education unit to evaluate the effectiveness of each unit (Appendix J).

(b) A guide is used by each teacher to assist with preparation prior to each job observation field trip (Appendix K).

(15) Objective:

To plan and promote expansion of activities to other districts (including private schools).

Accomplishments:

(a) Requests for information regarding the "Next Step" project are beginning to increase rapidly. Presentations have been given by the project supervisor to the following groups:

(1) College representatives from Montana State University, Western Montana College and Northern Montana College.

(2) Montana Vocational Guidance Association.

(3) Clancy School District P.T.O.

(4) Montana State Advisory Council for Vocational Education.

(5) Montana Personnel and Guidance Association.

(6) Vocational Guidance Institute, Northern Montana College.

(b) Meetings have been held with school personnel from Missoula, Montana School District, Fort Benton, Montana School District and Great Falls, Montana School District.

(c) The project supervisor met with teacher preparation classes at Montana State University and Northern Montana College.

C. PROJECT DESIGN

1. Following official approval and funding of the project priority was given to the elementary level in terms of program design, development and implementation. Specific attention was given to the establishment of a program in each of eleven (11) elementary schools with some exemplary activity for grades one (1) through six (6).

2. Meetings were scheduled with administrative staff for review of the project plan and implementation. All building principles favored the concept and made the necessary arrangements in each of their buildings for a staff member to represent the building. (Appendix P).

3. Initial orientation was scheduled for the entire instructional staff of each elementary school and was followed with a request for teachers to volunteer to participate in the project if they felt they were interested.

4. Following staff and student selection, in-service training was scheduled for the project teachers. Formats for elementary career education units were reviewed and discussed. The general outline that was selected for me is illustrated in (Appendix D).

5. A major component of each career education unit involved activities designed to assist students with understanding and evaluation of self characteristics, awareness of job characteristics, economic and social values of work, psychological and sociological meaning of work, educational avenues and student process of decision-making.

6. Career Education curriculum units involve a plan for complete and total integration of the academic subjects and the career selected for study. Units are designed for approximately six (6) to nine (9)'s of activities. Teachers and students will then move to another occupation. Resource people from the community are utilized for discussion regarding careers. An additional dimension to the unit is the job observation field trips which enable students to see, smell and hear the world of work.

7. Essential to the success of the career education program is staff who have prime responsibility for writing the curriculum units, arranging for resource people, scheduling job observation field trips and delivery of materials to teachers when they are needed.

8. Without community support for a career education progress will be slow. The project "Next Step" involved numberous groups and individuals from the community and district instructional personnel. Various assignments have been or will be given to these groups and will involve such activities as curriculum development, evaluation, dissemination, budget planning, community involvement, development of a position paper etc.

9. Release time or provisions for substitute teachers was utilized to enable project staff to attend in-service training.

10. Video tape equipment will be used to record various classroom activities as will build a resource of occupational activities on many different careers.

11. Only minimal activities have occured at the junior high level. One program involved a five (5) week one (1) hour per day discussion session on occupations with each student being given one (1) day of release time from school to accompany their parent to work and study the job of the parent was involved in and then reporting to the class regarding this experience.

12. A group of junior high level boys were involved in a unit on food services for a four (4) week period of time. With this study there were job observation field trips to various community facilities to observe food service occupations.

13. Career education programs also involved twenty (20) intermediate mentally retarded students. Experience were related to various careers which will be consistent with their abilities in such things as food services, janitorial, landscaping etc.

14. Instructional materials represented items which are a real departure from the traditional instructional materials at the elementary level. Such materials included boards, nails, paint, food materials, electronic apparatus, cloth, staging material for drama, rocketry components etc.

15. Considerable emphasis will be made during the second year of the project to develop programs for grades 7 - 12.

16. Combined career education efforts in the district including industrial arts, home economics and secondary student enrollment at the Vocational-Technical Center show and approximate average student participation of 53 percent. (Appendix O).

6. (e) Evaluation of the Project [1]

Introduction

Primarily because this was the first year of the Project; because the first year was somewhat devoted to tooling-up, recruiting people (both staff and participants), orienting staff, preparing instructional materials and launching programs; and because it would be unrealistic to anticipate in such a few months many significant changes in behavior and achievement by students, the Evaluation is focused upon process, attitudinal and statistical measurements. By the end of the second year, it is anticipated that product evaluations may be in order, that changes in teacher behavior will be identifiable and measurable, and that anticipated outcomes will be identifiable and measurable.

Anticipation was and is that the Project would provide for and result in certain outcomes or contributions to the improvement of education (especially Career Education) and these anticipated outcomes constitute part of the basis for the Evaluation hereafter being reported, they include:

(1) an increased student awareness of occupational options in the world of work
(2) an academic-vocational integration of the curriculum K-12
(3) students making more realistic career choices
(4) integrate occupational information into the overall school curriculum
(5) increased employability and placement of students as the gap is bridged from school to work
(6) increase the social understanding of all work
(7) greater involvement of those persons who are disadvantaged or handicapped
(8) a reduction of the school drop-out rate
(9) much greater involvement of teachers and administrators in assisting youth in decision-making and goal-setting
(10) increased correlation and cooperation of the school system and the community in regard to the employment of youth and adults
(11) provide for a more stable economy through a more closely coordinated manpower pool
(12) emphasis on an improved working relationship with local-state agencies and organizations having similar purposes

(1) Objectives of the Project

The specific objectives of the Project were used as focal points for the Evaluation. These also constituted the basis for the more detailed hypothesized "objectives" which were utilized in the "Opinionnaire", the findings of which are summarized in section 6.(e) (5) which follows later in this Report. Following are the specific objectives of the Project:

A. To broaden occupational orientation at the elementary, junior high, and high school levels.

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1. This section was prepared by Dr. Allen Lee, third-party evaluator.

B. To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps).

C. To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs, and promote implementation thereof.

D. To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

E. To give more, practical work experience to youth at various grade levels, and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

F. To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

G. To develop employability of students.

H. To develop the assumption of responsibility for placement of students at whatever level they leave the school system.

I. To create bridges between school and earning a living for young people who are still in school, who have left school either by graduation or drop out, or who are in post-secondary programs of vocational preparation.

J. To make greater use of existing school facilities, especially during the summer months.

K. To conduct inservice for District and other personnel to achieve the objectives of this proposal.

L. To bring general educators, vocational educators, State Department of Education staff, local school staff, teacher education staff, Model Cities staff, staff specifically concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve the objectives of this proposal.

M. To improve the status, scope and image of vocational-technical education.

N. To design and consummate an objective and effective evaluation to be used for periodic modification of the Project.

O. To plan and promote expansion of activities to other districts (including private schools).

The expressed intent also inherent in the Project plan was that the above-listed objectives of "The Next Step" Project would be achieved through a series of related basic activities which would (1) broaden occupational orientation at elementary, junior high and high school levels (2) broaden occupational aspirations and opportunities, (3) systematically identify work opportunities for youth at various levels, (4) systematically train youth for identified available jobs, (5) place students in jobs on a part-time basis, (6) result in assumption of responsibility to develop some degree of employability in most students in both elementary and secondary levels, (7) result in assumption (by the school) of some responsibility for appropriate placement for every student who leaves school.

The Evaluation report, and especially sections (5), (6) and (7) are addressed to the anticipated outcomes, the objectives and to the intended basic activities outlined above.

(2) Selection of Participants

The decision to involve all grade levels (K-14) in the Project was in reality determined by the nature of the plan, which was quite comprehensive as indicated by the formal objectives. All schools (15) in the District were involved in the Project and in the evaluation. These were:

Senior High School (9-10-11-12)
Sunhaven School
Vocational-Technical School
Junior High School
C. R. Anderson School
Broadwater School
Bryant School
Central School
Hawthorne School
Jefferson School
Lincoln School
May Butler School
Ray Bjork School
Rossiter School
Smith School

By the end of the Project year some 58 teachers, 320 high school students and 780 elementary students were participating in the on-going Project. Both participants and others not immediately involved in the Project were involved in the Evaluation here being reported. These included:

1. 383 teachers (K-14)
2. 10 counselors
3. 10 principals (some were responsible for 2 schools)
4. 9 college or university teacher-trainers (both general and vocational)
5. 16 staff from the State Department of Education (6 on written responses to Opinionnaire)
6. The Advisory Board of 25 members (Note Appendix)
7. About 35 members of the Helena School District community (business-men, government employees, industrial representatives, utility companies, parents, former students, etc.

The teachers who were involved in conduct of "The Next Step" program were interested volunteers from the faculty at large primarily in the elementary and junior high schools, since objectives selected for priority this first year of the Project made this most appropriate. Most of the District teaching staff were involved in some aspect of the evaluation, since perceptions of participating as well as non-participating (this first year) personnel were deemed desirable.

(3) Characteristics of Participants

With major emphasis upon developing awareness and exploratory activities, students from a wide variety of classes were involved (rather than in just specialized vocational classes). These were primarily at below high school levels. No students were tested for achievement, for reasons outlined elsewhere in this report. The typical class enrollment (about 50% girls and 50% boys) was included. The teachers involved in the Project were, of course, primarily in the elementary and junior high schools (priorities for the second year of the Project will involve more high school staff). About 46 handicapped students were involved the first year.

(4) Description of Measures

The instrument (note Appendix) titled "Opinionnaire for Identifying Perceptions of Career Education", along with its proto-types, served as the major basis for eliciting both written and oral responses which contributed to the evaluation data accumulation.

In addition to the Opinionnaire, questions presented orally on a small group and individual basis were in effect re-phrasing of the several major objectives of the Project to ascertain what had and had not been done.

The basic instrument was applied to the faculty and other groups (in general, each met separately) which included the 15 schools respectively, the Advisory Board, the principals, the counselors, the teacher trainers, the State Department of Education, and the community group ---each meeting separately.

All groups initially and separately participated in proto-type instrument development and pre-testing. Following refinement and stabilization of the instrument (note Appendix) it was applied to the various groups as indicated.

For instrument application, about 15 State Education Department and other personnel were oriented (by the third-party evaluator) in the techniques and guidelines for application of the instrument. Most often, the instrument was applied to a group by a team of two persons. The third party evaluator personally applied the instrument to the principals, counselors, Advisory Board, State Education Department and community groups. He supervised application of the instrument to the respective (15) schools.

The hypothesized objectives in the instrument stemmed directly from the Project's formal objectives, with sometimes two or more objectives (in the instrument) being devised to measure perceptions of current status and conceptual desires for a single formal objective of the Project.

As indicated above, those who applied the instrument did so after an orientation session, following prescribed and agreed upon uniform procedures. Development of the proto-type, pre-testing, revision, orientation of observers, and application covered the major part of the Project year.

Sections 6.(e) (5), (6) and (7) summarize and indicate the data collected by application of the instrument, oral discussion on the group basis, individual interviews and personal observation.

The basic instrument which was applied to about 7 groups including 15 schools, 10 counselors, 10 principals, 9 teacher educators, 8 Advisory Board members and 35 community representatives was initially applied so that each individual respondent replied in written form anonymously and without interaction. Following the collection of written responses so made, the chairman then conducted group interaction on an oral basis. Notes were made on the group interaction, and data from both the individual written and the group oral responses went into the data bank upon which this evaluation is based.

Responses were machine-processed (put on punch cards which were tabulated by computer).

This evaluation report is being distributed to and discussed by all of the participating groups, and is scheduled for detailed presentation and discussion by the Helena District Board. It will be utilized as a guide receiving consideration in the planning of Project activities and policies for the second year.

(5) Tabulation Summary of Data Collected Pertaining to Respondent Perceptions of the Current Status and Conceptual Ideals for Objectives Inherent in the Project.

Data for this Evaluation were collected in two principal ways: (1) by systematic queries (with written responses) to 383 teachers, 10 counselors, 10 principals, 9 college or university teacher trainers, 6 State Department of Education staff, 8 Advisory Council members, and 35 community representatives at-large; and (2) by the evaluator conferring with numerous Project and other staff, and personally observing various facets of the Project in operation periodically during the year.

The rationale behind the involvement of the 461 persons itemized above included: (1) there was need to establish base lines as early as possible during this first year of operation; (2) respondents selected were in optimum position to identify problems and progress in operation of the Project, and (3) involvement of participants in this phase of the Evaluation should lend credibility to the findings and recommendations, and thereby enhance possibilities for action to assure accomplishment of Project objectives, thus making the Evaluation effective.

Following is a summary of data collected from the 461 respondents, reported in terms of the instrument ("Opinionnaire For Identifying Perceptions of Career Education") which is included in the Appendix to this Report.

1. Objective: To broaden occupational orientation at the elementary, junior high and high school levels.

	Desirable [1]			Exists [2]		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	92%	3%	6%	32%	31%	37%
2. Counselors	100	0	0	40	30	30
3. Principals	100	0	0	60	40	0
4. Tchr Trainer	100	0	0	11	78	11
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	100	0	0	37	0	62
7. Community	100	0	0	32	43	25

2. Objective: To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps).

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	94%	2%	4 %	28%	37%	35%
2. Counselors	100	0	0	50	30	20
3. Principals	100	0	0	50	50	0
4. Tchr Trainer	100	0	0	22	67	11
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	100	0	0	25	12	62
7. Community	100	0	0	27	35	38

3. Objective: To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs and promote implementation thereof.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	90%	4%	6%	27%	36%	37%
2. Counselors	100	0	0	40	60	0
3. Principals	90	10	0	50	40	10
4. Tchr Trainer	100	0	0	11	78	11
5. St Dept Ed	100	0	0	83	0	17
6. Adv Council	87	13	0	12	13	75
7. Community	97	0	3	20	17	63

1. Meaning: Did the respondents view the objective as a desirable one?
2. Meaning: Did the respondents perceive the objective currently being achieved?

4. Objective: To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	90%	3%	7%	22%	33%	55%
2. Counselors	80	10	10	20	50	80
3. Principals	70	30	0	30	60	10
4. Tchr Trainers	100	0	0	22	67	11
5. St Dept Ed	100	0	0	50	50	0
6. Adv Council	100	0	0	25	25	50
7. Community	94	6	0	23	32	45

5. Objective: To provide more, practical work experience for youth at various grade levels and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	83%	5%	12%	15%	44%	41%
2. Counselors	80	10	10	10	80	10
3. Principals	70	30	0	0	80	20
4. Tchr Trainers	78	0	22	33	56	11
5. St Dept Ed	100	0	0	33	67	0
6. Adv Council	87	0	13	25	12	63
7. Community	89	0	11	26	35	39

6. Objective: To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	92%	3%	5%	22%	35%	43%
2. Counselors	100	0	0	40	40	20
3. Principals	100	0	0	30	50	20
4. Tchr Trainers	100	0	0	22	67	11
5. St Dept Ed	100	0	0	17	83	0
6. Adv Council	100	0	0	12	25	63
7. Community	97	0	3	17	43	40

7A. Objective: To have the curriculum in the District designed to develop some degree of employability at grades K-6.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	23%	55%	22%	4%	50%	46%
2. Counselors	20	70	10	0	70	30
3. Principals	20	70	10	0	80	20
4. Tchr Trainers	44	44	11	0	89	11
5. St Dept Ed	33	67	0	0	100	0
6. Adv Council	87	0	13	12	37	50
7. Community	20	49	31	0	63	37

7B. Objective: To have the curriculum designed to develop some degree of employability at grades 7-8-9.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	60%	29%	11%	8%	41%	51%
2. Counselors	80	10	10	20	30	50
3. Principals	80	20	0	0	70	30
4. Tchr Trainers	89	11	0	11	78	11
5. St Dept Ed	67	17	17	0	100	0
6. Adv Council	100	0	0	13	37	50
7. Community	57	29	14	0	54	46

7C. Objective: To have the curriculum designed to develop some degree of employability at grades 10-11-12.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	90%	2%	8%	36%	17%	47%
2. Counselors	100	0	0	70	10	20
3. Principals	100	0	0	60	10	30
4. Tchr Trainers	100	0	0	11	67	22
5. St Dept Ed	100	0	0	67	33	0
6. Adv Council	87	0	13	37	13	50
7. Community	94	0	6	43	35	22

7D. Objective: To have the curriculum designed to develop employability in grades 13 and 14.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	86%	1%	15%	44%	10%	46%
2. Counselors	90	0	10	70	0	30
3. Principals	100	0	0	60	10	30
4. Tchr Trainers	100	0	0	11	67	22
5. St Dept Ed	100	0	0	67	33	0
6. Adv Council	87	0	13	37	13	50
7. Community	91	0	9	46	17	37

8. Objective: To develop the assumption of responsibility for placement of students at whatever level they leave the school system.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	44%	39%	17%	6%	51%	43%
2. Counselors	30	50	20	0	80	20
3. Principals	40	30	30	0	70	30
4. Tchr Trainers	67	11	11	11	78	11
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	50	25	25	13	25	62
7. Community	40	35	25	6	65	29

9. Objective: To create bridges between school and earning a living for young people who are still in school, or who have left school either by graduation or drop-out, or who are in post-secondary programs of vocational preparation.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	81%	6%	13%	20%	33%	47%
2. Counselors	80	0	20	50	20	30
3. Principals	90	10	0	20	60	20
4. Tchr Trainers	100	00	00	22	67	11
5. St Dept Ed	100	0	0	33	67	0
6. Adv Council	87	0	13	25	37	38
7. Community	86	3	11	21	35	44

10. Objective: To make greater use of existing school facilities, especially during the summer months.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	84%	6%	10%	25%	42%	33%
2. Counselors	100	0	0	20	50	30
3. Principals	100	0	0	60	30	10
4. Tchr Trainer	89	11	0	11	67	11
5. St Dept Ed	83	0	17	0	83	17
6. Adv Council	100	0	0	25	37	38
7. Community	94	3	3	49	35	16

11. Objective: To improve the status, scope and image of career education.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	89%	3%	8%	28%	26%	46%
2. Counselors	100	0	0	40	50	10
3. Principals	90	10	0	70	30	0
4. Tchr Trainers	100	0	0	0	78	11
5. St Dept Ed	100	0	0	50	50	00
6. Adv Council	100	0	0	50	25	25
7. Community	97	0	3	46	29	25

12. Objective: To have the school assume joint responsibility to assist all types of students who leave the school (via graduation or drop-out) in becomming located in an appropriate learning and/or working environment.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	54%	27%	19%	8%	44%	48%
2. Counselors	60	20	20	20	50	30
3. Principals	60	40	0	20	60	20
4. Tchr Trainers	100	0	0	11	78	11
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	50	50	0	0	12	88
7. Community	51	32	17	9	51	40

13. Objective: To have the school's curriculum equip students to cope with the possible eventual necessity to change from one occupation or career to another.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	81%	8%	11%	13%	38%	49%
2. Counselors	90	0	10	20	20	60
3. Principals	100	0	0	50	40	10
4. Tchr Trainer	100	0	0	22	78	0
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	100	0	0	25	37	38
7. Community	86	11	3	14	43	43

14A. Objective: To have some phase of career education provided at grades K-6.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	61%	26%	13%	23%	27%	50%
2. Counselors	90	10	0	30	40	30
3. Principals	90	10	0	40	40	20
4. Tchr Trainer	89	11	0	11	67	22
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	87	0	13	13	0	87
7. Community	43	40	17	11	50	39

14B. Objective: To have some phases of career education provided at grades 7-8-9.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	81%	7%	12%	27%	21%	52%
2. Counselors	100	0	0	40	10	50
3. Principals	100	0	0	50	30	20
4. Tchr Trainer	100	0	0	22	67	11
5. St Dept Ed	100	0	0	0	100	0
6. Adv Council	100	0	0	13	0	87
7. Community	77	9	14	26	26	48

14 C. Objective: To have some phases of career education provided at grades 10-11-12.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	92%	1%	7%	46%	10%	54%
2. Counselors	100	0	0	30	20	50
3. Principals	100	0	0	70	10	20
4. Tchr Trainer	100	0	0	44	44	11
5. St Dept Ed	100	0	0	100	0	0
6. Adv Council	87	0	13	37	0	63
7. Community	91	0	9	46	17	37

14 D. Objective: To have some phase of career education provided at grades 13 and 14.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	89%	0%	11%	46%	6%	48%
2. Counselors	90	0	10	30	20	50
3. Principals	100	0	0	80	0	20
4. Tchr Trainer	100	0	0	67	22	11
5. St Dept Ed	100	0	0	100	0	0
6. Adv Council	87	0	13	37	0	63
7. Community	94	0	6	51	8	41

15. Objective: To have the school be primarily concerned with preparing students for college.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	11%	84%	5%	40%	27%	33%
2. Counselors	0	100	0	50	50	0
3. Principals	0	100	0	20	80	0
4. Tchr Trainers	0	100	0	78	11	11
5. St Dept Ed	0	100	0	100	0	0
6. Adv Council	13	87	0	25	25	50
7. Community	11	82	7	43	37	20

16. Objective: To have the school maintain records on the placement and progress of students (in college and in employment) to facilitate evaluation of career education in the school.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	61%	25%	14%	7%	42%	51%
2. Counselors	90	10	0	30	60	10
3. Principals	50	50	0	20	40	40
4. Tchr Trainers	89	0	11	44	44	11
5. St Dept Ed	100	0	0	17	83	0
6. Adv. Council	75	25	0	0	50	50

17. Objective: To have the community actively participate (not to be confused with "dictate") in policy-making for the school.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	65%	16%	19%	26%	27%	47%
2. Counselors	90	10	0	60	30	10
3. Principals	100	0	0	80	10	10
4. Tchr Trainer	78	11	11	33	56	11
5. St Dept Ed	100	0	0	17	67	17
6. Adv Council	100	0	0	13	25	62
7. Community	63	20	17	11	37	52

18. Objective: To have advisory committees as an essential part of the school communication system.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	65%	12%	33%	18%	28%	54%
2. Counselors	70	0	30	20	40	40
3. Principals	100	0	0	50	30	20
4. Tchr Trainer	100	0	0	33	56	11
5. St Dept Ed	83	0	17	67	17	17
6. Adv Council	100	0	0	25	13	62
7. Community	86	0	14	40	17	33

19. Objective: To have regularly certificated staff supplemented in the classroom by persons currently recognized and employed as experts in various career fields.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	79%	11%	10%	21%	33%	46%
2. Counselors	100	0	0	50	50	0
3. Principals	100	0	0	70	20	10
4. Tchr Trainer	100	0	0	56	33	11
5. St Dept Ed	100	0	0	33	67	0
6. Adv Council	87	0	13	13	12	75
7. Community	97	3	0	40	20	40

20. Objective: To have a wide variety of community resources utilized for career education.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	95%	1%	4%	25%	31%	44%
2.	Counselors	100	0	0	50	30	20
3.	Principals	100	0	0	70	30	0
4.	Tchr Trainer	100	0	0	11	67	22
5.	St Dept Ed	100	0	0	17	83	0
6.	Adv Council	100	0	0	13	12	75
7.	Community	79	0	21	23	23	54

21. Objective: To have career education teachers in the school qualified to perform in their field or specialization in industry.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	75%	10%	15%	20%	30%	50%
2.	Counselors	60	10	30	0	60	40
3.	Principals	60	40	0	10	50	40
4.	Tchr Trainer	67	33	0	33	44	22
5.	St Dept Ed	83	17	0	50	50	0
6.	Adv Council	87	0	13	13	25	62
7.	Community	91	0	9	29	26	45

22. Objective: To have career education teachers periodically work in industry to update their skill and knowledge.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	75%	9%	19%	6%	38%	56%
2.	Counselors	60	20	20	0	70	30
3.	Principals	90	10	0	0	60	40
4.	Tchr Trainer	67	22	11	11	67	22
5.	St Dept Ed	100	0	0	17	83	0
6.	Adv Council	75	25	0	0	13	87
7.	Community	86	6	8	8	37	59

23. Objective: To have differentiated staff with differentiated salaries utilized in the conduct of career education.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	32%	24%	53%	9%	26%	65%
2. Counselors	70	0	30	10	60	30
3. Principals	50	30	20	0	50	50
4. Tchr Trainer	56	11	33	0	56	44
5. St Dept Ed	83	0	17	33	50	17
6. Adv Council	75	0	25	0	13	87
7. Community	37	6	57	6	14	80

24. Objective: To have such segments of the community as business, industry, and other employers influence the school's curriculum.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	54%	21%	45%	18%	31%	51%
2. Counselors	70	10	20	30	40	30
3. Principals	90	10	0	70	20	10
4. Tchr Trainer	100	0	0	56	33	11
5. St Dept Ed	100	0	0	67	33	0
6. Adv Council	87	0	13	0	13	87
7. Community	74	11	15	37	22	41

25-A. Objective: To have exploratory activities in career education (such as visits and experiences in business and industrial establishments) occur at grades K-6.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	65%	22%	13%	29%	19%	52%
2. Counselors	90	10	0	50	10	40
3. Principals	80	10	10	70	20	20
4. Tchr Trainer	89	11	0	33	44	22
5. St Dept Ed	100	0	0	50	33	17
6. Adv Council	100	0	0	37	0	63
7. Community	51	35	14	37	40	23

25-B. Objective: To have exploratory activities in career education (such as visits and experiences in business and industrial establishments) occur at grades 7-8-9.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	81%	7%	12%	33%	16%	51%
2.	Counselors	90	10	0	50	0	50
3.	Principals	80	10	10	70	20	10
4.	Tchr Trainer	100	0	0	33	44	22
5.	St Dept Ed	100	0	0	17	50	33
6.	Adv Council	100	0	0	25	13	62
7.	Community	79	14	7	35	40	25

25-C. Objective: To have exploratory activities in career education (such as visits and experiences in business and industrial extablishments) occur at grades 10-11-12.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	90%	1%	9%	36%	11%	53%
2.	Counselors	100	0	0	50	0	50
3.	Principals	90	0	10	50	10	40
4.	Tchr Trainer	100	0	0	56	11	33
5.	St Dept Ed	100	0	0	67	17	17
6.	Adv Council	100	0	0	37	13	50
7.	Community	100	0	0	43	32	25

25-D. Objective: To have exploratory activities (such as visits and experiences in business and industrial extablishments) occur at grades 13-14.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	51%	1%	48%	20%	6%	74%
2.	Counselors	20	0	30	10	0	90
3.	Principals	40	0	60	30	0	70
4.	Tchr Trainer	67	0	33	44	11	44
5.	St Dept Ed	83	0	17	50	0	50
6.	Adv Council	62	0	38	25	13	63
7.	Community	65	0	35	29	17	44

26. Objective: To have career education aspects of the school curriculum deal with the professions (such as engineering, medicine, law, etc.) as well as business and industry.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	86%	6%	8%	19%	27%	46%
2. Counselors	90	0	10	30	30	40
3. Principals	90	0	10	50	10	40
4. Tchr Trainer	100	0	0	56	22	22
5. St Dept Ed	100	0	0	50	50	0
6. Adv Council	100	0	0	37	13	50
7. Community	79	14	7	35	40	25

27. Objective: To have the school arrange for on-the-job work experience which is not supervised by school staff.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	49%	29%	22%	13%	33%	54%
2. Counselors	40	50	10	30	60	10
3. Principals	30	40	30	20	30	50
4. Tchr Trainer	44	44	10	11	67	22
5. St Dept Ed	83	17	0	0	50	50
6. Adv Council	75	12	13	12	25	62
7. Community	63	29	8	26	20	54

28. Objective: To have the school arrange for on-the-job work experience (for students generally) which is supervised by school staff cooperating with employers.

	Desirable			Exists		
	Yes	No	Don't Know	Yes	No	Don't Know
1. Teachers	65%	16%	19%	6%	18%	76%
2. Counselors	90	0	10	10	70	20
3. Principals	80	0	20	30	30	40
4. Tchr Trainer	100	0	0	56	33	11
5. St Dept Ed	83	17	0	67	17	17
6. Adv Council	75	25	0	13	25	62
7. Community	77	17	6	29	32	39

29. Objective: To have the school's curriculum meet the needs of all students, those who will attain a baccalaureate degree and those who will not.

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	92%	2%	6%	20%	39%	41%
2.	Counselors	100	0	0	40	40	20
3.	Principals	100	0	0	60	30	10
4.	Tchr Trainer	100	0	0	11	78	11
5.	St Dept Ed	100	0	0	0	100	0
6.	Adv Council	87	13	0	13	25	62
7.	Community	86	11	3	17	51	32

30. Objective: To have the school teach all students how to work (such as how to apply for a job, how to dress, punctuality, responsibility, and good work habits generally).

		Desirable			Exists		
		Yes	No	Don't Know	Yes	No	Don't Know
1.	Teachers	89%	5%	6%	29%	28%	43%
2.	Counselors	100	0	0	60	10	30
3.	Principals	100	0	0	40	30	30
4.	Tchr Trainer	100	0	0	44	44	11
5.	St Dept Ed	100	0	0	33	50	17
6.	Adv. Council	87	13	0	13	50	37
7.	Community	97	3	0	23	35	42

(6) Analysis of Data

Space and other factors legislate against an item by item, individual, detailed analysis of the data summarized for each of the thirty factors included in the preceding section; however, certain strong trends stand out and merit specific mention. There are occasional exceptions to the following generalities, but in general these statements apply:

1. With the exception of items 7A, 8, 15, 23, 24 and 27 all groups strongly favor the concepts embodied in the 30 items listed.

2. In general, all groups agree that what is being currently practiced is far short of what they would like to see done.

3. Principals appear to know more about what goes on in the schools than do any other groups.

4. Counselors appear to know much more than do teachers about what goes on in the school.

5. The community people (other than school people) know relatively little about what goes on in the school.

6. Principals have the most favorable impression of school practice, counselors next, and teachers definitely have a less favorable impression of the total school program.

7. The community (non-school employees) are most critical of the current situation.

8. School people consider communication with the community to be much better than does the community.

9. The community wants to know more, influence more, be consulted more.

10. The community has few specific suggestions, but expects and desires to have school people do what is needed to improve communication.

11. All groups appear to recognize a need for major improvement, and see a great potential for doing this by increased attention and emphasis upon factors inherent in exemplary career education as conceived in "The Next Step" project.

12. All groups reflect the belief that decisive and major changes are urgent.

The next section of this evaluation report deals with the evaluation of progress and recommendations in terms of the specific objectives (note 6 (e) (1)) of "The Next Step" project.

(7) Conclusions and Recommendations [1]

1. Objective: To broaden occupational orientation at the elementary, junior high, and high school levels.

Findings: An excellent start has been made at the elementary level. Some excellent "Career Education Units" have been developed by staff of the Helena schools (note Appendix), and these have been made available to teachers generally in the district.

Recommendations: Inservice should be scheduled to enable staff at the elementary, junior high and high school levels to examine existing course content, identify elements which contribute to this objective, identify additional course content needed, and incorporate improvements in course content.

The program should be continued and accelerated at the elementary level, and expedited at the junior high and senior high levels in the second year of the project.

2. Objective: To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic or other handicaps).

Findings: Activity described in relationto objective #1 has contributed to this objective (#2) so far as "aspirations" are concerned. Little has been done during the first project year with regard to "broadening opportunities".

Recommendations: Provision should be made in the second year budget to employ an additional staff member to be assigned responsibility inherent in this objective regarding "opportunities" and in objective #4 pertaining to work experience.

This new staff person should begin work preferably by January 1, 1972, concentrating upon contacting every business, industry, and other employer in the Helena area. The purposes should include explaining the program to employers, eliciting cooperation, identifying pre-placement training needs, developing instructional programs to meet these needs, placing students, observing student progress, etc.

3. Objective: To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs, and promote implementation thereof.

Findings: There was periodic consideration and discussion of this objective and general agreement on the need; however, for several reasons no specific action was taken. Baseline data emphasize the need for action in the opinion of all groups (7) surveyed.

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1. In addition to the data summarized in section 6 (e) (5) of this report the reader should note sections 6 (a), 6 (c), and 6 (d) for details on accomplishments.

Regular school and Project staff have promising ideas on how to identify droupouts, how to pinpoint causes therefore, and how to identify (in advance) probable dropouts. Equally significant, among the staff and in pertinent and available literature there exist ideas and information promising for both remedial and preventative programs.

Recommendations: This should be given high priority for the second year of the Project. Provision should be made in the second year budget to employ a staff member whose prime responsibility will be achievement of this objective.

4. Objective: To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

Findings: Late in the first year some fifty-two businesses and industries were contacted, and thirty-five appeared promising for development of desirable work opportunities. This was the extent of activity to achieve this objective. Baseline data show strong support for this objective but indicate very little is now being done in this regard in the school district.

Recommendations: Achievement of this objective should be one of the highest priorities for the second Project year. Provision should be made in the budget to hire a man whose chief responsibility will be to achieve this objective. He should be charged with responsibility to follow up on the preliminary contacts already made, in addition to contact and develop opportunities with professional offices (medical, law, dentistry, governmental, etc.), to identify desirable pre-employment qualifications and training needs, to coordinate placement, to arrange concurrent training, and to otherwise achieve the intent of this objective.

In addition to employing a full time person with Project funds as recommended above, the Assistant Superintendent in charge of Career Education for the District should contact the State Division of Vocational Education and secure agreement and funds to establish a reimbursed Distributive Education program. Then a full time D.E. man should be employed, preferably by January, 1972. This person and the above-mentioned person paid with Project funds should work closely together.

5. Objective: To give more practical work experience to youth at various grade levels, and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

Findings: This objective is closely related to the preceding one (#4 above). Little has been done to achieve it. A sizable number of high school students work at jobs --- with virtually no coordination or specifically related educational activity in the schools. Baseline data show strong support for this objective and widespread belief that little or nothing is being done to achieve it.

Recommendations: The two persons whose employment is urged under item #4 (above) should also be assigned responsibility for achieving this objective. Their activities should include development of opportunities,

placement of students and concurrent training, especially at the high school level. In addition, some students at lower grade levels should be placed, some for shorter periods of time, with formal credit but no financial remuneration.

6. Objective: To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

Findings: The Project director has had detailed discussions with the Manpower Planning Advisory Council and reached agreement to cooperate. Copies of the report "Analysis of the Current Manpower Situation and Projections Through 1975" have been distributed to nine social studies teachers for use in curriculum planning. Baseline data collected show strong support for this objective, but indicate that much more implementation is needed.

Recommendations: This objective should receive continued and intensified emphasis in the second year of the Project. All Project staff, all District counselors, all curriculum personnel and committees, and other District staff should systematically become familiar with job opportunities. One staff member should be assigned responsibility for bringing this about.

The "realistic picture of job opportunities" should be reviewed by the Advisory Board and school staff, and should be reflected in the selection of clusters selected and given priority under Recommendations given later in this Evaluation Report. Note expecially item #11E.

7. Objective: To develop employability of students.

Findings: Other than the significant training now being conducted by the Vocational-Technical School, the employability which is developed is incidental, inadvertant and minimal as reflected by the baseline data collected. The District has no formal policy pertinent to this objective, and there is really no specific definition or agreement on what "employ-ability" is or what degree of employability is desirable at various grade levels. Most respondents (involved in baseline data collection) favor development of employability at the upper grade levels, but many have some apprehensions about doing this at lower grades. Obviously most of the apprehesions are due to a lack of information concerning the definition of "employability" and the fact that the interpretation should vary with grade levels.

Recommendations: The Assistant Superintendent of the District in charge of Career Education should cause the development of a tentative, incomplete prototype position paper on career education. This paper should be widely distributed to staff in all schools in the District and to the Advisory Board for both written and oral critiquing. Following revision, the process should be repeated. Finally, the position paper (which should include guidelines on the assumption of responsibility for the development of some employability at various grade levels) should be reviewed and a formal position and policy adopted by the Board of the District. The position

paper should then be widely distributed and utilized by curriculum committees and by each school principal in the development of plans by each school in the District, respectively, as recommended subsequently in this Evaluation Report.

8. Objective: To develop the assumption of responsibility for placement of students at whatever level they lea.e the school system.

Findings: The schools assist significantly in the placement of college-bound students, and that is about all. School staff are divided, some favoring and some opposing this objective, but they generally recognize little is done by the schools for the non-college bound. Teacher educators believe the schools should assume more responsibility. The community strongly favors school assumption of significant responsibility for placement.

Recommendations: As the position paper referred to in item #7 (above) is developed, provision should be incorporated for the District to assume responsibility for assisting with placement (in employment or education) of every student leaving the schools.

A formal agreement should be sought with employment agency personnel for that agency to assign one person to work in the Vocational-Technical School under the direction of the Assistant Superintendent in charge of Career Education to assist with finding employment for those who need it. This person should work in coordination also with the two persons recommended in item #4 (above) and other school staff.

In effect, the District should assume responsibility to function as an employment agency, especially for students leaving the high schools and the Vocational-Technical school. This has enhanced the effectiveness of colleges and universities, and merits priority in the Helena School District.

9. Objective: To create bridges between school and earning a living for young people who are still in school, who have left school either by graduation or dropout, or who are in post-secondary programs of vocational preparation.

Findings: All groups (7) voiced approval of this objective, and in general indicated it is just not being achieved currently by the schools. Responsibility for achievement of this objective has not been pinpointed during this first year of the Project, but substantial progress is being made by Project activities at the elementary levels in development of awareness to the world of careers and by other objectives (especially # 1, 2, 4, 5, 6, 7, 8, and 13).

Recommendations: The Project Director should designate staff with responsibility for achieving certain objectives of the Project (including this one (9) and objectives (e.g.) 1, 2, 6, 10, 11, and 13, respectively) for the second year of the Project.

One staff person might have such responsibilities for grades K-6, another for 7-8-9, and a third for 10-14. Each person so designated should suggest a plan of activities to achieve this, to be finally approved by the Project Director.

The three persons so designated should concurrently be charged with responsibility for promoting gradual articulation of such activities into the on-going locally-financed educational program of the District.

10. Objective: To make greater use of existing school facilities, expecially during the summer months.

Findings: This objective has not received specific attention during the first Project year. It appeals strongly to community people, but they lack ideas on how to implement it. School staff in general are not so enthusiastically supportive to the concept.

Recommendations: Project staff should give consideration to this during the winter of 71-72, but the objective does not merit major priority. It does have a potential for improved communications and relations with the community.

Consideration should be given to possible summer classes related to work placement activities of the two persons recommended under objective #4 and #5.

11. Objective: To conduct inservice for District and other personnel to achieve the objectives of this proposal.

Findings: Numerous excellent short inservice sessions have been conducted during the first year of the project. School staff are eager for more. Meetings of the Project Director with eleven elementary staffs, with junior highs, with counselors, with principals, and others have been exceptionally well-received and effective.

Recommendations: Plans and budgetary provisions should be made for the following to be consummated during the second year of the Project:

A. Released time (extended tenure or by hiring substitutes) and travel to facilitate observation of specially selected on-going exemplary career programs. One person (at least) from each school in the District should be given responsibility for coordinating the development of a proposed plan of development for Career Education in his respective school, and, as a prelude, should be sent to observe a carefully selected exemplary program in another school. Some Boardmembers should also travel.

B. The high school principal should observe the Career Extension Center for Dropouts in the Fairbanks-North Star Borough School District.

C. The Project Director, utilizing suggestions of school staff and consultants, should identify places to be observed, should conduct advance orientation on what to look for, and agree upon reporting procedures which would result in the greatest benefit and effectiveness.

D. Plans and budgetary provisions should be made for the second Project year for inservice for staff to examine present course content, identify

career education elements therein, identify improvements needed, and to incorporate such improvements for the coming year.

E. Inservice plans and budgetary provisions should be made for the second year of the Project to orient selected District staff to the cluster approaches to Career Education (7-12), to determine desirable priorities, and to select clusters for initial development. Note comment in item #6 (preceding)

12. Objective: To bring general education, vocational educators, State Department of Education staff, local school staff, teacher education staff, Model Cities staff, staff especially concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve the objectives of this proposal.

Findings: The Project Director and the Assistant Superintendent in charge of Career Education for the Helena District have been very effective in implementing this objective during the first year of the Project.

Recommendations: The good work done already should be continued with no decrease in effort.

13. Objective: To improve the status, scope and image of vocational technical education.

Findings: The activities in connection with the several objectives during the first year of the project have contributed very materially and significantly to the attainment of this objective. Much improvement is desired, according to the baseline responses of the several hundred respondents involved systematically in the evaluation to date. For the good of the education program generally and for the welfare of students and society, continued improvement is not only desirable --- it is imperative.

Recommendations:

A. Project activities should be intensified and accelerated during the second year.

B. Obviously expanded facilities for career education are already needed and will be essential in the future --- which necessitates careful long-range planning.

C. Increased attention and emphasis given by the Assistant Superintendent (in charge of Career Education for the District) to the development of an official position on Career Education by the District Board.

D. The role and responsibility of the Assistant Superintendent (in charge of Career Education) for on-going and prospective career education in the elementary, junior high, high school and the Vocational-Technical schools should be sharpened and publicized. Special attention should be given to curriculum development and relationships with District curriculum staff for the elementary, junior high and high school levels.

E. Consideration should be given to designating staff (under the Assistant Superintendent responsible for Career Education) who are to be responsible for coordinating and promoting career education programs at the various grade levels, respectively.

14. Objective: To design and consumate an objective and effective evaluation to be utilized for periodic modification of the Project.

Findings: The Assistant Superintendent in charge of Career Education for the District and the Project Director have cooperated wholeheartedly in facilitating myriad evaluation sessions as requested by the third-party evaluator. The effectiveness of the evaluation for the first year will be reflected by the degree to which the several recommendations herein are implemented for the second year of the Project.

Recommendations: The Assistant Superintendent in charge of Career Education, the Project Director, and their staffs should review the recommendations herein, cause appropriate reviews with the Advisory Board, the Superintendent and the District Board, agree upon desirable action, and take prompt, decisive action accordingly.

15. Objective: To plan and promote expansion of "The Next Step" project activities to other districts (including private schools).

Findings: Initial first-year activities of the Project are beginning to attract attention. A considerable amount of interest has been shown by the Superintendent of Public Instruction and her staff.

Recommendations:

A. The good start in achieving this objective should be continued.

B. The state universities' teacher trainers in both general and vocational education should be requested to assign student teachers and interns to situations wherein they will have opportunity to observe, learn, influence and promote the objectives of this Project.

C. Budgetary provision should be made to facilitate internships of significant duration, with interns having significant, definite responsibilities, and being paid partially with dollars and partially with academic credit.

D. Staff of the State Department should be involved even more than they have been to date, because they have a legal, logical and desirable leadership force for the improvement of education within the State of Montana.

In addition to the above recommendations, it is hereby recommended that budgetary provision be made for:

A. Additional secretarial help to facilitate Project activities.

B. An instructional materials media person to provide needed assistance and materials at all grade levels, to promote dissemination of information on promising innovative developments in career education throughout the District.

C. As assistant to the Project Director, because the need for intensified action to meet Project objectives is urgent.

Summary of the Evaluation

The Project is off to an excellent beginning, but lateness in funding, delays in recruiting personnel and the usual first year tooling-up problems were encountered. Cooperation of the many teachers, administrators, counselors, schools, agencies, and others has been gratifying. Additional emphasis and activities are essential for the second year of the Project. Budgetary provisions, and prompt acquisition of additional staff recommended are definitely essential to success of the Project in the second year. Increasingly, the Project Director must be a manager, coordinator and facilitator. The first year of the Project (even though it was in actuality not a full year) was a good one. Prospects for the second year are bright, as is the potential for improvement of education through increased emphasis upon career education for all students at all grade levels.

E. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

(1) Project development at the elementary is expanding quite well. The career education concept is very acceptable to the instructional staff and is being integrated into the academic subject area.

(2) A large number of occupational and career development units have been developed along with identification and utlization of community resources.

(3) Instructional materials and equipment being ordered to support the curriculum units and classroom activities.

(4) There is need for accelerated planning and development for grades 7 - 8 and 10 - 12. A program has been implemented for grade 9.

(5) A continued and expanded effort is needed for in-service activities at all grade levels.

(6) Urgent needs exist in the area of employing additional staff with specific responsibilities in the areas of the drop-out, cooperative placement and media.

(7) Various advisory committees have been established for the project and have proven to be very beneficial as a communication link between the schools and the community.

(8) There is immediate need for the project staff and school staff to develop a "position paper" for the district and individual schools regarding career education.

(9) School facilities should be considered for use during the summer months when the regular school year is not in session. Plans and programs should be made for the summer of 1972.

(10) Release time for teachers has been utilized and will be continued and expanded.

(11) The use of interns from the colleges and universities should become a part of the project activities.

(12) Dissemination of project materials will be increased during the second year. At this writing numerous requests for materials have been received.

(13) It is recommended that the project "Next Step" be approved for a second year operation.

(Appendix A)

CONTRACT

This contract is made by and between the Technical Education Research Center, Inc., (TERC), a non-profit private corporation organized under the laws of the Commonwealth of Massachusetts, hereinafter termed the "Contractor" and the Helena School District No. 1, Helena, Montana, hereinafter termed the "Helena School District."

I.

The Contractor agrees to provide the necessary personnel, procedures, criteria and coordination for periodic evaluation of the project "The Next Step - A Comprehensive Program in Occupational Preparation And Placement," being conducted by the Helena School District through the Vocational Technical Center. Said services shall begin on December 1, 1970 and shall continue until November 30, 1971.

II.

At the conclusion of the project period as defined above, the Contractor agrees to provide the Helena School District Superintendent and the Director of Vocational Education with a written evaluation report regarding positive aspects of the program and suggested procedures for program improvement. It is further agreed that said final payment hereinafter mentioned will be made upon receipt of said written evaluation report.

III.

As consideration for the services pursuant to Paragraphs I and II hereof, the Helena School District agrees to pay the Contractor the sum of Seven Thousand, Six Hundred and Seventy-Five Dollars ($7,675.00). The first payment of Two Thousand, Five Hundred and Fifty-Eight Dollars and Thirty-Four cents ($2,558.34) will be made after Phase I of the evaluation has been completed. The second payment of Two Thousand, Five Hundred and Fifty-Eight Dollars and Thirty-Three Cents ($2,558.33) will be made after Phase II of the evaluation has been completed. The final payment of Two Thousand, Five Hundred and Fifty-Eight Dollars and Thirty-Three cents ($2,558.33) will be made following completion of Phase III of the evaluation and upon performance of the Contractor's responsibilities as outlined above.

DONE AND DATED THIS June 28 day of 1971

HELENA SCHOOL DISTRICT NO. 1
By:

C. W. Leonard
Chairman, Board of Trustees

TECHNICAL EDUCATION RESEARCH CENTER, INC.
By:

Mary L. Ellis
Dr. Mary L. Ellis, Director
TERC Washington Office

(Appendix B)

PLAN FOR THIRD-PARTY EVALUATION

of

"The Next Step - A Comprehensive Program

in

Occupational Preparation and Placement"

(Project No.: 1-361-0169)

Prepared by: Allen Lee (Third-Party Evaluator)
Research Professor
Oregon State System of Higher Education
7708 O'Neil Road, North
Salem, Oregon 97303

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Plans and Report Forms for
Third-Party Evaluation of "The Next Step"
Vocational Exemplary Project No. 1-361-0169
(Contract No.: OEC-0-71-0684(361)

I. Purpose of the Evaluation

Section 103.45 of Title 45 of the Code of Federal Regulations, entitled "Research and Training, Exemplary and Curriculum Development Programs in Vocational Education" provides for a third-party independent evaluation at the end of each operational year.

A. The Purpose of the evaluation plan here being described is to fulfill the above provision and to identify strengths, weaknesses, needs and suggestions for improvement of the Project, which will serve as the basis for recommendations to be formulated by the third-party evaluator and presented to the Helena Public Schools for consideration in determining future directions of the Project.

B. Purpose of the Project (The Next Step) is to utilize existing research results to develop an exemplary comprehensive program intended to provide a broad range of occupational orientation at the elementary, junior high and secondary levels; to implement the assumption (by the District) of responsibility for developing some degree of employability for every student (especially, but not restricted to, youth who have academic, socio-economic or other handicaps) and to improve the placement of all students who leave school (dropouts as well as graduates).

C. The broad objectives of the exemplary Project (No. 1-361-0164) as stated in the guidelines of the BAVTE Policy Paper No.AVL-V70-1, October 2, 1969, are as follows:

1. Provision for broad occupational orientation at the elementary and secondary school levels so as to increase student awareness of the range of options open to them (students) in the world of work.

2. Provisions for work experience, cooperative education and similar programs, making possible a wide variety of offerings in many occupational areas.

3. Provision for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time that they leave the school. (Some of these training programs might be very intensive and of short duration.)

4. Provision for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling. (Placement might be in a job or in postsecondary occupational training. Placement should be accomplished in cooperation with appropriate employment services, manpower agencies, etc.)

5. Provision for the grantee or contractor to carry the program on with support from regular funding sources after the termination of the Federal assistance under Part D of P.L. 90-576.

D. Other specific objectives of the Project include:

1. To broaden occupational orientation at the elementary, junior high, and high school levels.

2. To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps).

3. To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial programs, and promote implementation thereof.

4. To identify and develop new opportunities for work experience and cooperative education in several occupational areas.

5. To give more practical work experience to youth at various grade levels and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit.

6. To achieve a more realistic picture of job opportunities and to utilize such information in training for employment.

7. To develop employability of students.

8. To develop the assumption of responsibility for placement of students at whatever level they leave the school system.

9. To create bridges between school and earning a living for young people who are still in school, who have left school either by graduation or dropout, or who are in post-secondary programs of vocational preparation.

10. To make greater use of existing school facilities, especially during the summer months.

11. To conduct in-service for District and other personnel to achieve the objectives of this proposal.

12. To bring general educators, vocational educators, State Department of Education staff, local school staff, teacher education staff, Model Cities staff, staff specifically concerned with the disadvantaged and handicapped, manpower agencies and others together in coordinated efforts to achieve the objectives of this proposal.

13. To improve the status, scope and image of vocational-technical education.

14. To design and consumate an objective and effective evaluation to be used for periodic modification of the Project.

15. To plan and promote expansion of activities to other districts (including private schools).

The questions and statements contained in the instrument (attached) are designed to collect data from a variety of sources, including teachers, administrators, students, a cross-section of the community, project staff and State Department of Education staff, and these data will be utilized by third-party evaluation staff in identifying strengths, weaknesses, needs and formulating recommendations for future operation of the exemplary project, as well as measuring or ascertaining the extent to which project objectives have been achieved from time to time.

II. Relation to Other Evaluations

The third-party evaluators are familiar with many of the evaluations of educational programs and the techniques and instruments designed for this evaluation utilize many adaptations of procedures and criteria which have been proven accordingly. In addition to the data collected in this evaluation per se, the recommendations to be made (as part of the third-party evaluation report) will take into consideration the findings from other career education programs.

III. Development of the Evaluation Plan

Procedures and criteria developed under Project No. 6-2921 (Contract No. OEG-4-6-000542-0001) and Project No. 7-1327 (Contract No. OEG-98-0 71327-0085) which have been extensively field tested and refined in Pennsylvania, South Carolina, Florida, Arkansas, Iowa, Minnesota, Kansas, Idaho, Oregon and Alaska are being utilized and adapted herein. The two projects cited above borrowed significantly from evaluative procedures and criteria developed by other authorities.

A. Respondents for "The Next Step" project will include:

1. Teachers, counselors, students and administrators in 15 schools in the Helena Public Schools (more than 75% of the universe).

2. A cross-section of community citizens from throughout the Helena district (estimated at 10 to 15 in each school community).

3. About ten staff from the State Department of Education, who will be involved in a dual role:

   a. assisting with collection of data from the 15 schools;

   b. assisting with analysis of data.

B. Extent of Coverage. Plans provide for more than 75% of the teachers, counselors and administrators to be involved in the Self-Analysis phase of the evaluation (responding to questions concerning their own classes or programs), hence no sampling problems exist. In the evaluation phase which involves the community, advisory committees and building principals will make nominations with the objective of involving a representative cross-section of business, industrial and civic and governmental publics.

C. Frequency and Timing. Initially, a partial survey will establish base lines; thereafter, the intent is to present questions such as in the instrument which follows (or appropriate adaptations thereof) at six-month intervals.

D. Method of Collection. The procedure for data collection includes the personal presentation and explanation of questions in written form, followed by written responses, and face-to-face oral discussions.

E. Consideration of Nonsampling Errors. Many questions to be utilized call for opinions, beliefs, and philosophy. Frank and honest opinions will be solicited in a manner which preserves anonymity for all respondents. No signatures are required and no names are identified with individual responses. The fact that most often a large majority (sometimes 100%) of the universe responds to the Self-Analysis phase insures a representative group: Lay and professional educators respond separately. Department of Education staff will individually and somewhat independently make analyses and interpret results. Final conclusions are based on not one source of information, but rather such as school staff, community lay persons, State Department staff, project staff and third-party evaluation staff. Information from these sources will be assembled separately and compared for similarities and inconsistencies. Reviews will provide for supplementary information. The fact that at the outset the questions are presented and explained on a face-to-face basis will insure clarity and uniformity of interpretation. The questions, per se, were reviewed by representatives of all groups prior to being put into final form. All respondents will have the opportunity to add additional questions and to respond to these. They will also have the opportunity to add clarifying and qualifying comments for each response in written and in oral form. The basic questions in the instrument have been thoroughly field-tested in a wide variety of situations, and revised as deemed advisable. Third-party evaluation staff have no vested interest in the program being evaluated and have complete freedom to make final judgments based upon unbiased consideration of many sources of information, including statistical reports. They are well-trained and experienced in general and career education, and in evaluative procedures.

F. Standard Definitions and Classifications. In general, this section does not apply. There are, however, various education terms which are defined and interpreted by the third-party evaluation staff.

C. Processing and Interpretation. This will be done initially in tentative form by State Education Department and third-party evaluation staff. Following review with concerned persons (teachers, administrators and advisory personnel) tentative compilations and reports will be finalized by third-party evaluation staff. Due to the nature of the data (much in narrative form), the analysis will not be computerized. Responses will be manually tabulated according to the several classifications indicated under Sectic III. A. (Preceeding). The responses will be interpreted by evaluation staff, and reviewed with key respondent group representatives and advisory groups before conclusions and recommendations are finalized. Results will be previewed by at least two third-party evaluation staff members before finalizing also.

H. Allowance for Pretests and Follow-Ups. The overall plan (including procedures and criteria) has been applied more than 100 times and periodically revised. Following applications, the procedures and criteria, as such, have been critiqued and possible areas of weakness identified for potential change and improvement. The fact that the data collection and evaluation will ordinarily occur at six-month intervals facilitates comparisons, identification of inconsistencies and strengthening as needed. The instrument has been pre-tested in the Helena district, refined and again tested. In the event that respondent groups are found inadequate in any of the schools at the first application, additional follow-up sessions will be conducted.

I. Comparison and Data from Other Sources. The plan provides for collection and consideration of data from several sources as described above, including existing statistical reports compiled by the District.

J. Calendar. Beginning of the preliminary work on the design of the survey was December 1970. Conferences pertaining to the instrument, procedures, respondents and participating personnel were held from February to May, 1971 with groups of teachers, counselors, administrators and lay advisory groups which pretested the instrument after which refinements were made. Application of the finalized instrument will be with the Community Committees in July and August and with teachers, counselors, students and administrators in September and October in the 15 schools. Tabulation of data will begin in August. Tentative drafts of findings and recommendations will be made in September, followed by reviews and finalization by October 31, 1971.

K. Cost Estimates

1.	Preliminary and exploratory work	$ 850
2.	Development and printing of questionnaire	980
3.	Manuals and other instructions for conduct of survey	475
4.	Collection (field costs, interviews, travel and supervision	1,700
5.	Editing and coding	570
6.	Tabulation	620
7.	Analyses and preparation of final report	1,011
8.	Overhead and other costs	1,469
		$ 7,675

IV. Questionnaire and Instructions. Note accompanying instrument.

V. Pretests

This has been done with a selected sampling of teachers, administrators, counselors, State Department of Education staff and members of the Advisory Council.

VI. Follow-ups

The nature of the design is such that the data-collection instruments are presented on a face-to-face basis. If an initial meeting with a group for some reason does not have adequate attendance, subsequent meetings will be arranged.

VII. Development of Sampling Plan.

Because a large majority of teachers, counselors and administrators are to respond, no sampling design has been made. In the case of the community representatives, the Advisory Council and project staff, along with the third-party evaluators, are together identifying the types of business, industry, governmental and other employers in the District. School administrators, Project staff, State Department of Education staff and the Advisory Council are making nominations with final determination the prerogative of the Advisory Council

VIII. Supervision of Field Enumeration

Instruments will be administered by third-party evaluation staff and by State Education Department staff. Uniformity will be assured by written guidelines, by an orientation program for state staff and by state staff participating as observers and assistants prior to working alone on data collection. The director of the third-party evaluation will supervise the data collection activities of state staff.

IX. Manuals or Instructions

Instructions in form similar to Attachment "A" are being prepared.

X. Progress and Cost Reporting

Third-party evaluators will work in Helena periodically and report progress orally and in written form with appropriate billings twice during the year and a third time when the final report has been submitted and accepted. Agreement provides for billings to be based on actual costs not to exceed the amount of $7,675 total for the year.

(Appendix C)

OPINIONAIRE FOR IDENTIFYING PERCEPTIONS

of

CAREER EDUCATION

September 1, 1971

*Prepared by Allen Lee

Opinionnaire For Identifying Perceptions
of Career Education
(As it is and as it should be)

In our estimation, both community citizens and school staff have somewhat unique and valuable perceptions and insights as to what is and what should be the nature of education; accordingly, we are requesting your perceptions of strengths, weaknesses and suggestions for improvement before we formulate specific recommendations.

Our concern here is with Career Education which, for the purposes of this instrument is defined to include:

A. Orientation, exploration, development of self-awareness, guidance (or counseling), general and specific instructional activities which may pertain to career choice and preparation. It includes all grade levels.

B. Areas such as "vocational edunation" and " occupational education" which may or may not be state or federally reimbursed.

C. Careers which may require no college training, careers which may require community college (or other post high school) education, and careers which may require baccalaureate or other degrees.

INSTRUCTIONS

On the following pages are a number of "objectives" to which you are asked to react. Before you do so, please note these comments:

1. This list of "objectives" has been prepared for use with a wide variety of persons in the community who have varied backgrounds of training and experience. If a statement appears vague, restricting, not applicable, or undesireable in some respect, please change, delete or add one or more words to that statement before responding. If that is not feasible, merely go on to the next statement.

2. Occasionally, as you consider an "objective" (in the list which follows) you may encounter one for which you have no opinion, don't know, or for some reason can only indicate you are undecided. This is to be expected, and often an "undecided" response is as helpful and informative (for this study) as any other.

3. There are no "right" or "wrong" answers, and the composers of these "objectives" do not necessarily agree or disagree with any one "objective".

4. In most instances, we want you to react to an "objective" in terms of the situation in the designated school (or schools); however, occasionally this may be illogical, and you should respond in terms of lower or higher grade levels. Sometimes you may elect to indicate (under "comments") that you have one response for one grade level, and another for other levels.

5. Near the end of this opinionnaire you will note some numbered blank spaces. Please add and respond to additional topics which are pertinent to the improvement of Career Education.

6. We will consider all responses (both written and oral) as anonymous; that is, we may identify them as community committee or staff opinions, but in no instance will anyone identify a particular opinion with an individual person.

7. For each listed "objective" we are requesting that you give three reactions.

First, please indicate whether or not you consider this to be a desirable education activity in your local school by placing a symbol in column #1 after the objective (any one objective might be desirable in all, some, or none of the schools and grades in the District). (Note the "Key" which follows).

Second, (and regardless of your response in column #1) please indicate (by placing a symbol in the second column) whether or not you believe that this objective is currently being achieved in your school. (Note "Key")

Third, In the "Comments" space for each "objective" please add supporting, clarifying or qualifying comments and details supporting or explaining your responses.

We believe your viewpoint to be of vital importance in identifying strengths which should be preserved, areas of weakness and need, and suggestions for the improvement of education, especially with regard to that which we have defined as "Career Education". For these reasons, we appreciate your reactions to the "objectives" which follow.

Key For Recording Reactions

For Column #1:

write:

Yes . . . . . If you perceive this to be a desirable objective and you would prefer to see it actually being achieved in your school (s).

No . . . . . If you consider or believe that the "objective" is inappropriate or for some reason is not desirable for your school (s).

U . . . . . If you are undecided or don't know.

For Column #2:

write:

Yes . . . . . If you perceive this is being attained satisfactorily in your school currently.

No . . . . . If you perceive this is not being attained in the current education program.

U . . . . . If you are undecided or don't know what is currently being accomplished in your school.

Objective	#1 * Desired	#2 ** Exists
1. To broaden occupational orientation at the elementary, junior high and high school levels	_____	_____
Comments:		
2. To broaden occupational aspirations and opportunities for youths (including those who have academic, socio-economic, or other handicaps)	_____	_____
Comments:		
3. To specifically identify dropouts (at whatever level), pinpoint causes for dropouts, plan preventative and remedial		

Objective	#1 * Desired	#2 ** Exists
programs, and promote implementation thereof	_____	_____
Comments:		
4. To identify and develop new opportunities for work experience and cooperative education in several occupational areas	_____	_____
Comments:		
5. To provide more, practical work experience for youth at various grade levels and to have such experience characterized by learning while doing, significant responsibility for productive service to an employer, reimbursement (from employers) to the student for service rendered, and recognition of educational values (of such work experience) by awarding formal credit	_____	_____
Comments:		
6. To achieve a more realistic picture of job opportunities and to utilize such information in training for employment	_____	_____
Comments:		
7. To have the curriculum in the District designed to develop some degree of employability at the following levels:		
a. Grades k - 6	_____	_____
b. Grades 7 - 8 - 9	_____	_____
c. Grades 10 - 11 - 12	_____	_____
d. Grades 13 - 14	_____	_____

---

* In your opinion, should this be accomplished or be an objective of education in your school?

** As you see it, is this currently being achieved by education in your school?

Objective	#1 * Desired	#2 * * Exists

Comments:

8. To develop the assumption of responsibility for placement of students at whatever level they leave the school system . . . . . _____ _____

Comments:

9. To create bridges between school and earning a living for young people who are still in school, or who have left school either by graduation or drop-out, or who are in post-secondary programs of vocational preparation . . . . . _____ _____

Comments:

10. To make greater use of existing school facilities, especially during the summer months . . . . . _____ _____

Comments:

11. To improve the status, scope and image of career education . . . . . _____ _____

Comments:

12. To have the school assume joint responsibility to assist all types of students who leave the school (via graduation or drop-out) in becoming located in an appropriate learning and/or working environment . . . . . _____ _____

Comments:

Objective	#1 * Desired	#2 * * Exists
13. To have the school's curriculum equip students to cope with the possible eventual necessity to change from one occupation or career to another	_____	_____
Comments:		
14. To have some phase of career education provided at each of the following levels in the school district:		
a. Grades K - 6	_____	_____
b. Grades 7 - 8 - 9	_____	_____
c. Grades 10 - 11 - 12	_____	_____
d. Grades 13 - 14	_____	_____
e. Adult basic education	_____	_____
Comments:		
15. To have the school be primarily concerned with preparing students for college	_____	_____
Comments:		
16. To have the school maintain records on the placement and progress of students (in college and in employment) to facilitate evaluation of career education in the school	_____	_____
Comments:		
17. To have the community actively participate (not to be confused with "dictate") in policy-making for the school	_____	_____
Comments:		

Objective	#1 * Desired	#2 ** Exists
18. To have advisory committees as an essential part of the school communication system . . .	_____	_____
Comments:		
19. To have regularly certificated staff supplemented in the classroom by persons currently recognized and employed as experts in various career fields	_____	_____
Comments:		
20. To have a wide variety of community resources utilized for career education	_____	_____
Comments:		
21. To have career education teachers in the school qualified to perform in their field or specialization in industry	_____	_____
Comments:		
22. To have career education teachers periodically work in industry to update their skill and knowledge	_____	_____
Comments:		
23. To have differentiated staff with differentiated salaries utilized in the conduct of career education	_____	_____
Comments:		

Objective	#1 * Desired	#2 ** Exists
24. To have such segments of the community as business, industry, and other employers influence the school's curriculum	_____	_____
Comments:		
25. To have exploratory activities in career education (such as visits and experiences in business and industrial establishments) occur at the following levels:		
a. Grades K - 5	_____	_____
b. Grades 6 - 7 - 8	_____	_____
c. Grades 9 - 10 - 11 - 12	_____	_____
d. Other	_____	_____
Comments:		
26. To have career education aspects of the school curriculum deal with the professions (such as engineering, medicine, law, etc.) as well as business and industry	_____	_____
Comments:		
27. To have the school arrange for on-the-job work experience which is <u>not</u> supervised by school staff	_____	_____
Comments:		
28. To have the school arrange for on-the-job work experience (for students generally) which <u>is</u> supervised by school staff cooperating with employers	_____	_____
Comments:		

Objective	#1 * Desired	#2 * * Exists
29. To have the school's curriculum meet the needs of all students, those who will attain a baccalaureate degree and those who will not	_____	_____
Comments:		
30. To have the school teach all students how to work (such as how to apply for a job, how to dress, punctuality, responsibility, and good work habits generally)	_____	_____
Comments:		
Please write other "Objectives" or questions which you consider important, and respond to them:		
31.	_____	_____
32.	_____	_____
33.	_____	_____
34.	_____	_____

Please summarize or list briefly the major or outstanding strengths which you see currently in education (especially career education) in your school or schools:

Please summarize your perceptions of weakness in education (especially in career education) in your school or schools:

Please summarize your ideas and suggestions on actions which might be taken to improve education (especially career educatinn) in your school or schools:

Note:
We believe that your perceptions of what is and what should be the nature of education are of vital importance, and we will give your reactions thorough and serious consideration in the formulation of our recommendations to your school administration. Thank you for your assistance.

Sincerely,
Allen Lee

APPENDIX D

PROJECT "NEXT STEP" AN OCCUPATIONAL AND CAREER DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

HOME BUILDING UNIT

FOR

GRADES 1 & 2

PREPARED BY

MRS. SCHNEIDER

MRS. OLSON

JEFFERSON SCHOOL

HOME BUILDING

The Home Building Unit is an educational and career development program undertaken by Mrs. Olson and Mrs. Schneider of the first and second grades at Jefferson School and coordinated with School District #1 and the career development project entitled "Next Step". The purpose of the Home Building Unit is to enable students to be aware that all people use some type of home for shelter and security and to explore the wide variety of occupations that are associated with the construction of a house. Educationally the Home Building Unit will integrate occupational information into the overall school curriculum. Occupational areas to be explored include architects, contractors, plumbers, painters, cement workers, carpenters, brick layers, landscapers, electricians, bulldozing operators and interior designers. Curriculum areas to be utilized will include math, science, social studies, art, health, language, reading and music.

The students will become exposed to various types of homes and buildings, different stages of construction and different types of workers through a field trip to various locations within the city. Local resource personnel of various occupations described above will be available to expose children to the kinds of work they are involved in and to explain and demonstrate the tools that are needed for their job. The highlight of the unit will be a model house designed and decorated by the students which will be made of shoe boxes and other scrap materials.

We encourage all students, teachers, administrators and parents to visit and observe this occupational and career development program.

HOME BUILDING

INTRODUCTION

To each of the boys and girls in the early primary grades the familiar word of the home is of first importance. Because this is the group the child has always associated with, he takes the home and its pattern of living for granted without knowing any of the constituents which go into making the home or how the home becomes a happy place to live. The purpose of this unit is to enable the students to become aware of the purpose of the home, the different types of home, the workers and occupations that are needed to construct a home and to develop an understanding of the activities, responsibilities, that are needed to make a happy home.

General Objectives

1. The student will be able to broaden their occupational orientation as to the various workers and occupations that are required to build homes.

2. The student will be able to recognize various types of buildings by observing various building sites in the community on a field trip.

3. The students will be able to apply some basic construction skills by building a model home.

4. The students will gain an understanding of an appreciation for people who build homes.

5. The students will broaden their skills in basic curriculum areas such as social studies, math, reading, language, art and science.

6. The students will develop a basic understanding of the importance of a home in our daily life.

7. The students will gain an understanding of their own role in the family and their responsibilities for the family group.

8. The student will become aware of activities in which members of their own family participate to make living better for everyone.

9. The students will develop an appreciation for the family group and learn that family happiness is a cooperative effort on the part of all family members.

I. The student will develop a basic understanding of why all people have some type of home.

A. Activities and Skills

1. Social Studies
   a. Ask why homes are important to us.
   b. What advantages are there to having a home?
   c. Role play what it would be like if there were no homes.
   d. How did pioneers exist without homes? What did they do?
   e. Ask for experience where no home was involved, (camping etc.)
   f. Read stories about homes, their purposes, uses etc.
   g. View filmstrip, Story of Shelter (B-60)
2. Art
   a. Make a list of all reasons of why one needs a home and put this in a form of a bulletin board, or for later use in booklet entitled, My Home.

II. The students will develop an awareness for different types of homes by observing different types of homes in the community.

A. Activities and Skills

1. Social Studies
   a. Discuss the different types of homes the children live in.
   b. Discuss why different types of homes are needed for different families. (Apartment buildings, banks, hospitals, office buildings, warehouses, one and two story houses etc.)
   c. Discuss the role of climate on different types of homes.
   d. Read stories about people who live in different types of homes.
   e. Tell of an experience in a hospital or someone else's house and how it is different from their own.
   f. View the film strip, Homes are to Live In (ECM-3).
   g. Go on a field trip and observe the different types of homes and the various stages of construction that they are in.
   h. Ask what makes different homes comfortable and attractive.
   i. How can you make your home more comfortable,attractive and pleasant to live in?
2. Art
   a. Make a poster or bulletin board of different types of homes.
   b. Make a notebook of different pictures of different types of homes and use it for booklet, My Home. (Examples of types of homes: Indian Teepee, Eskimo igloo, log cabin, tree house, duplex, trailer house, farm home, houseboat, apartment house.)
   c. Draw a picture of their own home and compare with the rest of the class or save it for the booklet.
3. Math
   a. Ask the children to count the number of rooms in their house and compare with other members for size.
   b. Ask the students how they think that people pay for homes, such as renting, buying, leasing etc.

c. Computate the cost of a home using average prices for the cost of each room.
d. Based on rent paid or house payment, find out how much one pays for a home in a year just to live in it. Might also bring in lights, gas, water, repairs, telephone, etc.
e. Once this amount is found use some common commodity such as candy or toys and have the student visualize how much this amount paid for rent would buy.

4. Language
   a. Add new words to the vocabulary as to different types of homes, different ways of paying for houses, etc.
      1. rent
      2. buying, interest
      3. apartment houses
      4. two story houses
      5. business building, etc.
   b. Make a poem such as

Homes are places
To keep us dry and warm
Homes are places
That keep us safe from harm
Homes give us shelter
From all the weather
Homes are places
Where loved ones work together.

III. The student will recognize that all types of workers are needed to build homes by relating various occupations to workers who build the homes.

A. Skills and Activities
   1. Social Studies
      a. Ask for a list of people who build homes.
      b. Bring in resource people or parents to explain what they do and have these people bring pictures, or demonstration products, or talk about the services they perform. (Plumbers, painters, carpenters, electricians, brick layers, carpet layers, etc.)
      c. Read stories about people who build houses.
      d. Ask for any experience in building a house. Ask how they helped or any problems that developed while building.
      e. Examine the Vo-Tech house as to different workers that will be needed.
      f. Take one or more occupations such as a plumber and discuss what services that they provide for in the home, (bath water, wash water, dish water, sanitation etc.)
      g. Discuss the stages of a home and tie in with the film strips listed below.
      h. View film strips:
         F-87 Building a House
         F-100 Planning the Home
         I-44 Building the Foundation
         I-31 Building the Shell of a Home
         J-66 Finishing the Home

2. Art
   a. Make a bulletin board of different types of workers.
   b. Make a collection of pictures of different workers for notebook.
   c. Take one worker and list all or some of the tools that he uses.
   d. Make a layout of a house or the one to be constructed in the class. You might show all the rooms, or just one of the rooms.
   e. Draw a picture of their own house and compare it with the model to be made.
   f. Make model house.
3. Math
   a. Layout all the plans for the model house.
   b. Examine and measure the size of the house, the rooms, etc. in the model vo-tech house or the model to be made.
   c. Determine the cost of the house to be made using various prices for each room, e.g. $17 per sq. ft.
   d. If using sq. ft. might want to explain how cost is determined.
4. Language arts
   a. Add new words to the vocabulary list such as carpenters, plumbers, painters, brick layers, etc.

IV. The student will develop an awareness that they can make an important contribution to the home by examing ways in which they can assist with appropriate work experiences at home.

A. Skills and Activities

1. Social Studies
   a. Discuss why the student should help at home.
   b. Examine jobs that children can do to help at home (house cleaning, dishes, care of clothes, yard work, care for pets, run errands, take out garbage, etc.)
   c. Ask for the student's own work experiences at home. What do they do, if so, is there any pay involved etc.
   d. Discuss a family work plan.
   e. Design a schedule that might work at home either real or hypothetical.
   f. Bring in the concept of time and discuss if it is important when chores get done.
   g. Make an individual notebook of work experiences.
   h. Read stories about children doing various jobs at home.
2. Art
   a. Make list of or picture of workers at home.
   b. Make bulletin board of how can I help at home.
   c. Make a daily chart of the activities that children do at home.
   d. Might use the above notebook,My Home, or might have the children keep a daily list of their own work that they did.

3. Math
    a. Lay out a pay schedule for doing chores.
    b. Make a hypothetical problem of jobs and examine how much one could earn in a day, week, month, year etc.

V. The students will acquire a knowledge of the ways which make homes a happy place to live by examining workers in a home.

A. Skills and Activities
    1. Social Studies
        a. Discuss the size of each family in the class.
        b. How many brothers and sisters do each student have?
            1. Are they bigger or smaller?
            2. Do they have a baby in the family, etc.?
        c. Discuss the work of the family.
            1. Display pictures of the family at work
            2. What kind of work does my father do?
            3. Why must he work?
            4. What kind of work does father do at home?
            5. What do you do to help him?
            6. Why do you like to help your father?
        d. What does mother do for you and the family?
            1. What do you do to help mother?
            2. Why do you like to help mother?
            3. Sing songs about mother or family.
            4. Play Mulberry Bush.
            5. List the jobs that mothers do and place this list in the notebook.
        e. Discuss workers who come into the home.
            1. Make a list of these people such as baby sitters, policemen, firemen, grocer, baker, milkman, mailman, etc.
            2. How do these people help to make the home happy?
        f. Discuss fun for the family.
            1. Display pictures of a family having fun in various types of recreation.
            2. What do you do that is fun for everyone in the family?
            3. Talk about picnics, swimming, outdoor eating, playing games, birthday parties, etc.
            4. Discuss children's birthdays,when they are, how old, parties, etc.
            5. Sing songs about birthdays, etc.
        g. Discuss health at home
            1. Display pictures showing foods, neat and clean clothes, personal cleanliness, bedtime, playing outdoor games, etc.
            2. Make a chart of breakfast food, lunch and dinner.
            3. Ask why breakfast is important.
            4. Discuss lunch at school or carrying lunch to school.
            5. How many eat all the food mother prepares for meals?
            6. Might ask how they keep clean, brush teeth, comb hair, etc.
            7. Make a health chart.

2. Art
    a. Make charts like:
        1. What our mothers do.
        2. How can we help at home?
        3. My father's work.
        4. Something funny that happened to me.
        5. Make posters of workers outside the home who are important.
3. Evaluation

APPENDIX D

PROJECT "NEXT STEP" AN OCCUPATIONAL AND CAREER DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

UNIT ON THE DAIRY

FOR

SECOND GRADE

PREPARED BY

ANN MCCORMICK

CENTRAL SCHOOL

The Central School Unit on the Dairy is an educational and career development project undertaken by Miss McCormick's second grade class and is coordinated with School District #1, and the Career Development Project entitled "Next Step". The purpose of the unit is to enable the students to become aware of the wide range of occupations that are associated with operation of the dairy. Educationally, the telephone unit will integrate the occupational information into the overall school curriculum. Occupational areas to be covered include dairy farmer, county agriculture agents, veterinarians and many that work in preparation of milk products at the dairy.

Curriculum areas to be utilized and integrated with these areas include math, social studies, language arts, health and safety, science, reading and literature and art. The dairy unit will provide the students opportunity to gain some practical knowledge and experiences in the use and development of the dairy and dairy products.

Dairy farms are located in most parts of the country. Despite modern methods of processing and transportation, production is still concentrated near concentrated population centers.

There is work every day throughout the year on dairy farms, so effective use can be made of labor, and a regular force can be occupied most of the time.

We encourage all parents, students, teachers and administrators to visit and observe this educational and career development program.

I. Purpose

A. To build understanding of one of the community helpers - the dairy farmer
B. To build understanding of dairy farms
C. To build understanding farm machinery

Objective

1. Pupils will learn what a diary farm is and how they differ from other farms.
2. Pupils will be able to list the buildings, machines and animals found on a dairy farm.
3. Pupils will be able to grasp the significance of the good care cows need.
4. Pupils will solve how milk is taken from a cow and how much milk a cow will give.
5. Pupil will know where milk goes from the farm.
6. Pupils will learn why cleanliness is so important in a dairy barn.
7. Pupils will be able to compare how a farmer keeps himself, the barn and milking equipment.
8. Pupils will comprehend how people in towns and cities get milk.
9. Pupils will be able to differentiate about the variety of foods we get from milk and milk products.
10. Pupils will identify where milk products are sold.

SOCIAL STUDIES

I. Buildings needed on a dairy farm

A. Dairy barn - two story
1. Bottom
a. Individual stalls or stanchions
b. Mangers to feed cows
c. Cows fed and milked while in stanchions

2. Top
a. Used for storing hay, straw and sometimes grain.

B. Loafing sheds
1. Three sided building some farmers use instead of regular bar
2. Cows are in the shed loose
3. Cows are milked in a milking parlor

C. Dairy house
1. Connected to barn or milking parlor
2. Stores milking equipment
3. Used to keep bulk tanks or milk cans until milk can be picked up.
4. Has tubs to wash milking equipment

D. Calf barns
1. Bottom - partitioned off for calves not in stanchions
2. Top - used for storing hay and straw

E. Silo - storing silage

F. Machine Sheds

G. House for farmer and his family

II. Kinds of dairy cows

A. Holstein - Friesan - commonly called Holstein
1. black and white
2. largest and most popular

B. Jersey
1. Various colors - dark fawn, reddish brown, blackish

C. Guernsey
1. Reddish or golden fawn and white

D. Brown Swiss
1. Various shades of brown

III. Various types of work done on the farm

A. Caring for cows
1. Giving grain and hay every day
a. grain usually given while cows are milked

b. Hay several times during the day

2. Provided with plenty of water
3. Milked twice daily (12 hours between each milking)
4. Kept clean

B. Keeping the milking equipment and barn cleaned
   1. Milking equipment is washed after each milking
   2. Barn is cleaned every day

C. Raising food for the cows

   1. hay - cut, dried, raked and baled and bales brought into and close to the barn to be stored.

   2. grain - used in making feed - planted and harvested and then made into feed

IV. Machines used to help the farmer do the work

A. Machines used in caring for the cows
   1. Milking machines - pump milk from cow into a "milker" which the farmer dumps into larger pails after each cow is milked - the farmer then carries the larger pail of milk into the dairy house to dump it into cans or a bulk tank.
   2. Pipeline milker - the milk is sent from the milker through a pipeline into the dairy house directly.

B. Machines used in keeping the barn clean

C. Machines used in getting the fields ready to work
   1. plow
   2. disc harrow
   3. fertilizer spreader

D. Machines used in raising food for the cows
   1. hay-mower, conditioner, rake, baler, wagon, elevator for storing in a barn
   2. Grains - drill, combine, elevator for storing into the barns or granaries, rake and baler for straw

V. Seasons on a dairy farm

A. Spring
   1. Farmer is getting fields ready, plants seeds
   2. Cows turned out on pasture as soon as the nights are warm enough

B. Summer
   1. Farmer makes hay, combines his grain and cultivates his corn

2. Cows are out in pasture all the time - need little additional feed
3. Farmer starts to fill his silo

C. Fall

1. Farmer finishes filling his silos
2. Picks the corn when it is ready
3. Cows are in pasture but need feed as pastures stop growing.

D. Winter
1. Cows are kept in the barns day and night
2. Cows are turned out for exercise, while the farmer cleans out the barn

ARITHMETIC

1. Set up a dairy store with empty cartons or bottles to get number experiences by buying and selling various quantities of milk.
2. Learn the name and appearance of containers that hold 1 cup, 1 pint, 1 quart, 1/2 gallon and 1 gallon.
3. Measure powdered milk by teaspoon, tablespoon and cup. Check on number of level tablespoons in a cup.

SCIENCE

1. Demonstrate that cream is the fatty part of milk, make butter and eat it.

2. Grow wheat or grass in a dish of dirt
3. Plan and execute a field trip to a dairy farm and milk plant.
4. Find ways to increase children's appreciation of milk as a food and beverage - (make ice cream hot chocolate, milkshakes, chocolate milk etc.)
5. Let children explore what is being done by our government and religious and social organization to send dried milk to children in countries where milk is not their normal diet.

ART

1. Invite the pupils to contribute color pictures of different kinds of dairy cows. (Some breeds are more popular in Montana than in other parts of the United States.)
2. To the pictures of cows add pictures of meadows, hillsides, haystacks, sources of water, silos, barns and fences. Pictures could be arranged to tell the dairy story on a bulletin board.

3. Make a map of a dairy farm. Show its relation to public highway, section of the city. Illustrate the movement of milk with cardboard trucks from farm, dairy plant to the home in the community. Trace with colored pencil.
4. Make a mural of farming.

LANGUAGE ARTS

1. Dramatize scenes at the farm, dairy plant, store or door to door delivery.
2. Charade activities can transmit important ideas in the area of work by capitalizing on the pupil's delight in trying to guess what type of work the actors are portraying.
3. Compose stories about farming for the booklet.
4. Copy the stories about farming in best handwriting - Print headings on pages that have pasted in pictures.
5. Understand that dairy can mean (1) the farm where the milk cows live (2) the plant where fresh milk is prepared for use by people (3) the store where milk and products made from it are sold.
6. Write a thank you note to the farmer for letting us visit his farm and/or dairy plant.
7. Display books on the library table for children to look at
8. Make large flash cards or posters to illustrate new vocabulary words.
9. Make up stories about the importance of milk in relation to good health.

EVALUATION

1. The pupils will be able to illustrate the fact that workers of all kinds have important jobs to be done to keep and develop a dairy and dairy products and deliver to the consumer.

2. The pupils will be able to demonstrate and list the type of workers in a dairy and their qualifications.

3. Pupils will be convinced that milk is important to their well being now and all their lives.

4. Pupils will be able to demonstrate the relationship between one kind of farming and the welfare of people in towns and cities.

5. Pupils will have developed a new respect for cleanliness as a means of preventing illness.

APPENDIX D

PROJECT "NEXT STEP" AN OCCUPATIONAL AND CAREER DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

CLOTHING INDUSTRY

ELEMENTARY SCHOOL PROJECT FOR GRADE 3

PREPARED BY

TINA VEROULIS

BRYANT ELEMENTARY SCHOOL

Make evident to children that through the ages man realized the great importance of clothing along with food and shelter as his most basic needs.

General Objectives

1. To help pupils develop an interest and curiosity in the various job opportunities relating to the clothing industry.
2. To help pupils develop appreciation in the part scientists have played in discovering new and improved ways of making cloth.
3. To help pupils see the difference between the basic sources of natural and man-made fibers.
4. To instill the importance of automation in making cloth.

Specific Objectives

1. To instill the methods of weaving, carding, spinning.

    a. a guest speaker to demonstrate the above.

2. To instill the meaning wool and its importance in the clothing industry.

    a. a trip to a sheep farm

3. To instill the meaning of silk.

    a. raise real silkworms - was unable to do this for lack of materials.

Introduction of Unit

1. Display photographs of different types of cloth worn by people now and in ancient times. Compare!

2. List the names of fibers that children know that cloth is made from.

3. List types of job children think would be involved in the clothing industry.

Activities

Introduce the three basic clothing industries

a. Wool industry
b. Silk industry
c. Cotton industry

Discuss plant fibers - use demonstrations to show that plants also have fibers.

a. relate plant fibers to clothing industry

Continued:

b. Stress the part that scientists have played in making cloth from:

1. plants
2. wood
3. milk
4. coal
5. sand
6. straw

Make a chart of man-made and natural fibers. Arrange a display of available material samples for identification.

Film strips on clothing industry.

Library books on:

a. Wool Industry
b. Cotton Industry
c. Silk Industry

Make booklets of cloth samples and write their history.

Children bring samples of cloth for identification.

Resource people

Aiding people in performing tests on fibers and coloring of fibers.

Direct people in making oral reports.

List of vocabulary words involved in this unit.

Panel discussion on jobs involved with clothing industry.

Pupil Activities

Make individual booklets
Cut out fabrics and make picture
Weave cloth by making a simple loom

a. 4 pieces of wood 2" x 8"
b. nails
c. yarn
d. a shuttle made from a popsicle stick.

Spin yarn from cotton.
Make oral reports
Panel discussion

Resource people

Mrs. Nelson, Canyon Ferry Rd., Helena, MT

Continued:

A trip to a fabric store and clothing store will be very beneficial in stressing further job occupations with the clothing industry. I was unable to arrange it.

APPENDIX D

PROJECT "NEXT STEP" AN OCCUPATIONAL AND CAREER DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

WEATHER UNIT

FOR

DEVELOPMENTAL LEARNING CLASS

PREPARED BY

EDITH JORGENSON

BRYANT SCHOOL

WEATHER UNIT

INTRODUCTION

The curiosity and interest of children concerning weather and its role in their lives, provides educators with opportunities to utilize and help children explore and discover many of the basic and pertinent concepts of science. Observable weather changes, radio and television reports and forecasts, daily weather forecasts, daily weather maps, and reports in newspapers present excellent avenues in the development of some of the basic facts and principles and concepts of weather phenomena.

The objective of this unit is to stimulate the children into the gaining and seeking further scientific knowledge and formulating a more scientific attitude regarding the weather and the weather forecast. The unit will arouse the curiosity and encourage further study of the weather as well as providing the students with the opportunity to explore and become aware of the career opportunities associated with the weather. As a futher enrichment to this unit the students will have the opportunity to visit the weather bureau and get a first hand observation of how the weather is forecasted and measured.

I. General Objectives

A. The students will become aware of the fact that weather is constantly changing.

B. The students will be able to broaden their occupational aspirations by visiting the weather bureau and observing the duties and functions performed by meterologists.

C. The students will be able to develop basic skills in related areas especially in terms of science, math, art and language areas.

D. The students will develop an understanding of how the weather limits as well as provides for our daily activities.

E. The students will gain a clearer understanding of the weather concept and some of the basic principles which causes the weather to fluctuate.

F. The students will become familiar with common properties of the atmosphere and the instruments used to measure them.

G. The student will gain an appreciation for the techniques of weather forecasting.

II. The students will understand that the weather is constantly changing by observing the conditions that have prevailed during the week. (This can serve as a motivational objective.)

A. Skills and Activities

1. Social studies, language or science.

a. Ask about the weather today or yesterday and compare.
b. How does the weather effect our lives, what can we do, how are we limited?
c. Discuss hardships caused by weather that either hero's or classmates have encountered. (lightening, flood, snow, hail, rain, etc.)
d. Have the class tell of experiences of hearing or reading from television, newspaper, or by radio about weather conditions.
e. Bring clippings from local newspaper for a bulletin board as to weather forecasts, conditions, warnings, etc.
f. How does weather effect plant and animal life as compared to humans?

2. After a discussion of the above one may wish to make a chart as to all the things that the students know about the weather. Below are but a few examples.

a. We have many kinds of weather.
b. Sometimes days are sunny, and sometimes days are rainy, foggy or snowy.
c. Sometimes the sky is cloudy, and sometimes the sky is clear.
d. The weather changes often.
e. Sometimes we have many different kinds of weather in one day.
f. Temperature means how hot or cold anything is.
g. A thermomether is used to tell temperature.
h. Some clothes help us keep warmer than other types of clothing.
i. We cannot do much to change the weather.
j. Wind is the air in motion.
k. Warm air is pushed up by cold air.

3. After a discussion of the things the students know they may want to discuss and learn about things they do not know and would like to learn more about. Below are but a few examples.

a. How do we know what kind of weather we are going to have?
b. How does the weatherman find out about the weather?
c. What instruments are used by weatherman to tell about the weather?
d. What does the wind tell us about the weather?
e. What do clouds tell us about the weather?
f. How does the weatherman tell people about the kind of weather to expect.

g. How does the weather bureau help people.
h. What makes thunder, lightning, and climate.

III. The student will become aware that weather occurs in the part of the atmosphere which is closest to the earth by studying the layers of the atmosphere.

A. Skills and Activities.

1. Science

a. Stress that earth is completely surrounded by gasses called atmosphere.
b. Explain gasses extend out thousands of miles from the surface of the earth.
c. Discuss the composition of air both physical and chemical properties. (Hear, smell, see, touch, etc.) If we can't sense it, how do we know it is in existance?
d. Emphasize all weather occurs in the troposphere. Above the troposphere is stratosphere where planes usually fly. Discuss ionosphere and exosphere. Ask why planes fly in the stratosphere.
f. Stress that to know the condition of the weather we need to know the condition of the air.

1. Experiment with air by waving a piece of paper in front of yourself. Explain the results.
2. Use plastic bags to enclose air then push on it, flatten it out, put a hole in it etc. Explain the results.

2. Math

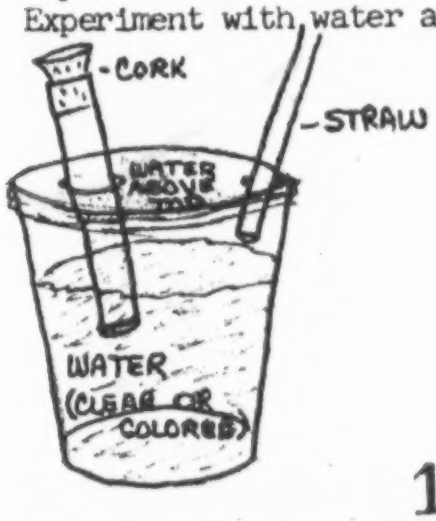
a. Might ask how many feet from earth the atmosphere to the top of the troposphere. (35 miles) Why do planes get up to 20000-40000 feet to do most of the flying?

IV. The student will understand the characteristics of air which controls the weather by studying and experimenting with basic concepts of air pressure.

A. Skills and Activities

1. Science

a. Stress the idea that air all around us is pushing all the time in various directions.
b. Explain that this push is called air pressure.
c. Experiment with water and the effect of pressure.



1. Fill the tank with water, three fourths of the way and cover.
2. Put straw in the small hole and the test tube with a cork in the other hole. Make sure the open end of the test tube is in the water.
3. Make sure that the straw is above the water and pull the tube up until the level of the water is slightly above the cover.

4. Draw a line on the tube to show the level of the water.
5. Blow on the straw, suck on the straw and show the increase and decrease in pressure.
6. Sometimes colored water will show somewhat clearer although clear water shows the same result.

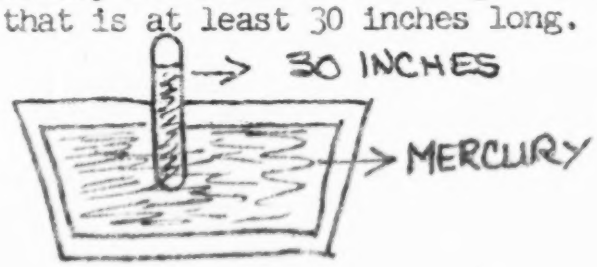
d. Explain the effect of other liquids such as oil and mercury in the same way and compare the results. Which requires more or less liquid, why or why not?
e. Explain that the pressure of the atmosphere is called atmospheric pressure.
f. Introduce the barometer and explain that this instrument is used to measure the atmospheric pressure.

V. The students will become familiar with the operation of a barometer by experimenting with a barometer and by making daily observations of this instrument.

A. Skills and Activities

1. Science

a. Explain about the first barometers. These were made of mercury.
b. Make a simple mercury barometer. Use a long tube which is closed at one end and that is at least 30 inches long.



c. Explain and discuss the liquid used in barometers and why.
d. Explain that a similar column of mercury at sea level would be 30 inches high and that the pressure of the air at that level could not support the mercury any higher and that this pressure is used as a standard.
e. Compare the pressure in Helena with that at sea level.
f. Experiment with the simple mercury barometer shown above.

1. If the pressure increases what happens to the mercury? Why?
2. If the pressure decreases what happens to the mercury? Why?
3. What would be the affect if there was no pressure exerted on the mercury?

g. Explain that barometers need not always contain a liquid.
h. Tie in what the function of an aneroid barometer is. There is no liquid involved and this type of barometer functions in an air tight can.
i. Explain the operation of the aneroid barometer, (parts, air tight can, brass needle, set needle, etc.)

1. A change in the pressure of the air on the airtight can causes a needle to move. The needle shows the amount of atmospheric pressure on the c scale. This can be compared with the set needle and the change in pressure noted.
2. What is the effect on the pressure if the pressure increases? Decreases?

j. Demonstrate and present the students with a real barometer.
k. With the real barometer do some experimentation.

1. Place the barometer face up in a large plastic container and seal. Place a straw through the seal in the vicinity of the middle and record the pressure. Blow air into the container and record the pressure. Suck air from the container and record. Note what happens to the brass set needle and what happens to the black needle in each instance.

2. Math

a. Make daily calculations to show the change in pressure.
b. Keep charts of the daily changes in the pressure.
c. Explain that the unit, inch, is very important in measuring pressure.
d. Discuss why inches instead of feet are used to measure atmospheric pressure.

VI. The students will understand that water exists in various states and forms in the atmosphere.

A. Skills and Activities

1. Science

a. Explain and discuss the composition of water.
b. Emphasize and physical properties of water and the effect of heat and cold.
c. Examine the various forms such as water vapor (invisible), falling droplets of rain or snow flakes, as tiny droplets or as ice crystals in clouds, as sleet, rain that freezes as it falls to the ground.
d. Take a given amount of water and freeze it. Compare the various states and then measure the liquid and see if any water is lost as it changes states.

VII. The student will be able to understand facts and principles about the concept of humidity.

A. Skills and Activities

1. Science

a. Define humidity
b. Stress the relationship of water vaper and humidity
c. Explain evaporation and condensation.
d. Explain and discuss the difference between high and low humidity.
e. Give examples of how water changes forms.
f. Relate the above concepts to the water cycle.

g. Do an experiment with humidity in the classroom.
Materials: 2 thermometers, 1 piece of tissue paper

Cover the bulb of 1 thermometer with wet tissue paper and fasten the tissue with a rubber band. Fan the thermometer with a piece of folded paper. Note the results. Why does the temperature drop as the water evaporated.

h. Introduce the wet bulb and dry bulb thermometer concept.
i. Explain the fahrenheit scale on the thermometer.

2. Math

a. Discuss and explain the difference between centrigrade and fahrenheit thermometers. Which one records the higher temp? Which one is more accurate? It there a difference? If so why?
b. Keep an accurate chart of the difference between the wet bulb and dry bulb readings and compare the humidity each day.
c. Use the humidity charts to note the humidity each day. This can be in the form of an overlay on the projector or a chart can be handed out to each student in the forms of a mimeographed chart.

VIII. The students will be able to predict the type of weather to be expected for each day by utilizing measurements of atmospheric pressure, the temperature change, humidity, wind speed and wind direction.

A. Skills and activities

1. Science

a. Make a detailed weather chart.
b. Make recordings every day.
c. Discuss the changes and their effect upon weather.
d. Describe patterns from the readings.
e. Compare your forecast with the newspaper, radio, or TV.

2. Math

a. Make daily recording.
b. Make recordings every day.
c. Use charts in temperature humidity, atmospheric pressure, etc., to predict the weather.

Time	General Condition	Atmosphere Pressure	Temp.	Humidity	Wind Direction	Wind Speed
Morning						
Lunch						
Afternoon						

XI. The students will develop a basic understanding of air currents by examining how air currents affect the weather.

A. Skills and Activities

1. Science

a. Discuss the movement of air.
b. Explain the effect of warm air and cold air masses and how they influence each other.
c. Define an air current.
d. Distinguish between breeze and wind.
e. Record the temperature of air at different spots in the room.
f. Find where the air is the warmest or coldest and where within the room.
g. Make a spinner and experiment with it in various locations.
h. Relate small movements of air to large movements of air.
i. Examine the weather maps of the high and low areas of air.
j. Practice reading weather maps and the air currents which effect the weather.
k. Stress map reading symbols and skills.
l. Make weather maps for Helena and compare the movements of air.

X. The students will become aware of the principle that different materials on the earth's surface affect the weather.

A. Skills and Activities

1. Science

a. Examine and stress that the sun supplies heat.
b. All materials on the earth are not the same and that some materials are affected in different ways by the sun. Might wish to emphasize colored materials, hard or soft materials, different shaped materials etc.
c. List all the things that cover the land such as grass, rocks, sand, trees, streets, etc., which are affected by the sun and may have an effect upon the weather.
d. Do an experiment with a light bulb using sand, rock, soil, water etc., and expose them to the light and note which ones are effected by the heat. Which one absorbs the most heat, which one the least, which are not affected etc.

2. Math

a. Compare the readings from each material
b. Practice skills in making accurate readings
c. Make a graph of the five materials tested with the light.

XI. The students will become familiar with the job of a weatherman by applying the basic principles of the unit and by visiting the weather station on a field trip. One might want to make use of the career analysis sheet as to questions which might be asked about the job of a weatherman.

A. Culminating Activities

1. Write thank you notes to the weather bureau.
2. Discuss what was observed.
3. Write a story, WHY I WOULD LIKE TO BE A WEATHERMAN.
4. Have oral or written reports on WHAT I LIKED BEST AT THE WEATHER BUREAU.

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APPENDIX D

PROJECT "NEXT STEP" AN OCCUPATIONAL AND CAREER DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

SCHOOL STORE UNIT

FOR

GRADES 4 - 6

PREPARED BY

SARAH HEROLD

HAROLD L. OLSEN

SCHOOL STORE UNIT

FOR

GRADES FOUR THROUGH SIX

Every school age child at some time or another embarks upon the local community store for school supplies. Because every child is influenced by this demand, children should become aware of the processes, procedures, operations and skills that are necessary in order for these operations to be available. The purpose, then of this unit is to expose children to as many facets of this career as possible while being coordinated with the curriculum.

For convenience and to allow each member of the class to participate, Mrs. Herold divided the class into three committees of five members each. The committees utilized in this unit were selling, advertising, and purchasing. Hopefully, each member of the class would have an opportunity to serve at one time or another on all three committees as the committees will be rotated after a specific period of time.

GENERAL OBJECTIVES:

1. The student will become aware of the wide range of opportunities open to them in a store by participating on one or more of the following committees: selling, advertising, or purchasing.

2. The students will be able to broaden their occupational aspirations by performing duties carried out by an actual store operation.

3. The school store unit will integrate occupational information into the overall school curriculum. Curriculum areas to be utilized include math, social studies, art, language, science and personal hygiene.

4. The student will be able to increase his social understanding of a store operation by participating on assigned duties as clerks, accountants, purchasing agents, advertising workers, bookkeepers, and secretaries.

5. The student will have the opportunity to gain some practical work experience which would be in turn characterized by learning while doing.

6. The students will have the opportunity to associate closely with other fellow classmates and to realize that a store operation is successful only if it is a cooperative effort on the part of all class members.

SPECIFIC OBJECTIVES

I. SELLING

A. Specific Objectives:

1. The student will be able to make change when a customer makes purchase.

2. The student will be able to solve mathematically simple problems relating to the sale of goods. This may be real or fictitious.
3. The student will be able to record individual sales accurately by keeping a record of all sales made.
4. The student will be able to meet and communicate effectively with the customers.
5. The student will be able to arrange materials or display them so that they are plainly priced and appealing to the customer.
6. The student will be neat and clean while performing or carrying out the duties of a salesman or saleswoman.
7. The student will possess an awareness of all the materials that are available to the customers.
8. The students will develop good listening techniques by being able to respond to the demands of the customer.
9. The students will develop skills in using imagination and creativity in dealing with human problems and relationsships.
10. The students will develop and practice the concept of honesty while assigned to specific jobs.

B. Skills developed and Activities related to selling

1. Math
   a. Figuring change
   b. Figuring fictitious problems relating to purchasing goods.
   c. Figuring total value of the inventory
   d. Balancing assets and liabilities at the end of the day.

2. Language Skills

   a. Listening to customers and speakers
   b. Communicating with customers
   c. Asking questions
   d. Giving oral or written reports to the class
   e. Discuss the uniqueness of individuals as customers
   f. Developing vocabulary skills and terminology.

3. Personal hygiene
   a. Neat appearance
   b. Cleanliness
   c. Be interested in people
   d. Be patient, pleasant and courteous
   e. Practice honesty and being responsible for assignments.

4. Social Studies

a. History of unions and labor force
b. Committee participation
c. Study of how store materials are made and processed.
d. Study of various occupations related to selling
e. Visitation to local community store and visualize and understand their operation.
f. Have reports on occupations which are of interest to specific individuals.

5. Science

a. Knowledge of raw materials which make up the store stock
b. History of stock materials
c. Understanding of chemical makeup of stock materials (all or just a few important items)
d. Psychology of selling
f. Psychology of meeting people in a public capacity.

II. Advertising

A. Specific Objectives

1. The students will be able to expand and experiment with the concept of creativity by designing poster, bulletin boards, and adverisements.
2. The students will be able to acquire reasonable skill in handling various tools and media of expression.
3. The students will be able to gain a consciousness of light and dark patterns in design and composition.
4. The students will become aware of the principle of perspective by properly laying out sign, designs, posters, ads, or bulletin boards.
5. The students will become aware of the size and cost of ads in the various advertising media.
6. The students will develop skills in writing advertisements by changing the advertisement weekly.
7. The students will be able to utilize various shapes and forms, and cultures in advertising.
8. The students will become aware of the various kinds of advertisements used by specific companies and ways by which companies sell products to the public.
9. The students will become aware of the purpose and importance of music in advertisements.

B. Skills developed and Activities related to Advertising

1. Art
   a. Study design and layout of ads
   b. Study color
   c. Explore materials for designs
   d. Develop interest in self expression
   e. Study lettering and printing and drawing
   f. Study basic skills of perspective
   g. Develop skill in handling artistic tools
   h. Study sign painting
   i. Develop hand eye coordination

2. Math
   a. Study of size, cost, and layout of ads
   b. Measure lettering for posters and bulletin boards

3. Social Studies
   a. Appeal to desired social class
   b. Various kinds of ads
   c. Ways to impress people with different presentations
   d. Visit to local sign company or advertising firm
   e. Talk by members from the above establishments
   f. Design of maps as related to material for sale
   g. Draw maps of location where products originated
   H. Conduct survey to determine the needs of school for supplies and needs.

4. Language
   a. Writing advertisements
   b. Examining ads along with interpretation
   c. Reading ads of various kinds
   d. Philosophy of posters, ads, bulletin boards etc.

5. Science
   a. Mixing of pigments
   b. Experiments with paints and dyes
   c. Play music during store hours to attract.

III. Purchasing
   A. Specific Objectives
      1. The students will have an opportunity to purchase materials for the school store at best cost with quality.
      2. The students will develop an understanding of the profit-loss business operation by keeping an accurate and up to date record of all materials bought and sold.
      3. The students will be able to solve accurately, math problems related to purchasing materials.
      4. The students will be able to survey the market for supplies and realize the competitive nature of business operations.
      5. The students will have an opportunity to practice communication skills by meeting and communicating with people from the business world.
      6. The students will develop speaking skills by giving oral reports on the financial purchases or the operation of the store from the purchasing point.
      7. The student will develop listening skills by being able to make decisions based upon suppliers costs.
      8. The student will practice good personal hygiene by being clean and neat when associating with the businessmen or resource personnel.
      9. The students will become aware of all the occupations that are related to the business operation of a store and those specifically related to purchasing.

B. Skills developed and Activities related to purchasing

1. Math
   a. Purchase materials at best cost with quality
   b. Become familiar with the profit loss concept
   c. Solve math problems related to purchasing material
   d. Keep accurate records of purchases and sales

2. Social Studies

   a. Survey the various suppliers that are available
   b. Meet with people in the community
   c. Committee participation
   d. Group participation in relation to the total store operation.
   e. Visit local purchasing department of a store
   f. Communicate with members from a store purchasing dept.
   g. Have reports on occupations which are of interest

3. Language

   a. Communicate effectively
   b. Discuss problems with other members of the class or committees
   c. Listening to resource personnel
   d. Write reports on purchases to the class or ad media.
   e. Interviewing suppliers
   f. Recording minutes of meetings of the committee.

4. Personnel Hygiene
   a. Neat appearance
   b. Cleanliness
   c. Be interested in people
   d. Be patient, pleasant and courteous
   e. Practice honesty and responsibility for duties assigned

IV. Total Group activities

A. Talks by local community resources on selling, advertising, and purchasing.
B. Listening to reports by other committee members.
C. Attendance and Participation at group meetings
D. Visit to stores or advertising and purchasing departments.
E. Viewing films and filmstrips
F. Role play different jobs
G. Sing Songs
H. Play Games

HAWTHORNE SCHOOL STORE

The Hawthorne School Store is an educational and career development project undertaken by Mrs. Sarah Herold's DLC class and coordinated with School District #1 and the career development project entitled "Next Step". The purpose of the School Store is to enable the students to become aware of the wide range of occupations that are associated with the operation of a store. Educationally, the School Store will integrate the occupational information into the overall school curriculum. Occupational areas to be covered include salesmen, advertising agents, purchasing agents, bookkeepers, accountants, and secretaries. Curriculum areas to be utilized and integrated with these areas include math, social studies, art, language, science, and personal hygiene. The School Store will also provide the students with the opportunity to gain some practical work experience which would in turn be characterized by "learning while doing".

The School Store will be operated on a small profit basis. The only profit to be realized by the store will be for replacement purposes. The profit to be received on each article will be the difference between wholesale and downtown retail price. All customers will be required to pay cash and no merchandise can be distributed on the basis of IOU's, checks or installments. However, IOU's, checks and installment payments will be discussed in class.

The School Store will be in operation five days a week from 8:15 to 8:40, 12:30 to 12:40 and 3:30 to 3:40. The store will handle only items that are needed for school. Such items include pencils, notebooks, paper, erasers, crayons, rulers, only to mention a few. We encourage all students, teachers, administrators, and parents to visit and observe this educational and career development program.

APPENDIX D

PROJECT "NEXT STEP"

OCCUPATIONAL AND CAREER

DEVELOPMENT PROGRAM

SCHOOL DISTRICT #1

HELENA, MONTANA

AVIATION UNIT

INTERMEDIATE GRADES

PREPARED BY

LENORE JOHNSON

LENNIE TRAWEEK

SMITH ELEMENTARY SCHOOL

SMITH SCHOOL AVIATION UNITS

The Smith School Aviation Unit is an educational and career development project undertaken by Mrs. Traweek and Mrs. Johnson's Fifth Grade Class and coordinated with School District #1 and the career development project entitled "Next Step". The purpose of the Aviation Unit is to enable the students to become aware of the wide range of occupations that are associated with aviation. Educationally, the Aviation Unit will integrate the occupational information into the overall school curriculum. Occupational areas to be covered include pilot, co-pilot, stewardness, ticket agent, control tower officer, ground crewman, airplane mechanics, weather-man, maintenance man, chef and many others the pupils may find of interest. Curriculum areas to be utilized and integrated with these areas include math, social studies, art, language, science, music, reading and literature, and health and safety.

In the Unit, Aviation emphasis is placed upon the purposes services, types and speed of aircraft in meeting people's needs, upon the many kinds of work done by skilled people who construct, fly, and maintain airplanes and by those who build and operate airports; upon the care for the safe and comfortable travel of passengers; and upon the freight which planes carry. Pupils are helped to understand the wonder as well as the real need for travel by air and to appreciate teh remarkable aptitudes and labor of those who have made air travel possible.

We encourage all students, teachers, administrators, and parents to visit and observe this educational and career development program.

Aviation — Fifth Grade Traweek and Johnson — Smith

The purpose of this unit is to acquaint students to aviation in order for them to see the job opportunities open in this career field.

The student will be able to evaluate themself to the broad occupational areas in light of their interest, aptitudes and abilities. This unit, developed for intermediate level, deals with the social aspects of aviation, the significant ways in which our lives are affected because man has learned to fly—including the importance as an industry in Montana and as a means of transportation.

In this unit emphasis will be placed upon the purposes, services, types, and speed of aircraft in meeting people's needs; upon the many kinds of work done by skilled people who construct, fly and maintain airplane and by those who build and operate airports upon the care for and safe and confortable travel of passengers and upon the freight which planes carry. Pupils are helped to understand to wonder as well as the real need for travel by air and to appreciate the remarkable aptitudes and labor of those who have made air travel possible. For added material pupils imagination can fly into the future of flight.

General area — approximate 6 to 9 weeks duration

1. Learn about the history of flight
2. Learn about the careers involved in flight
3. Learn about flying small aircrafts
4. Learn about the operation of manicipal airport
5. Learn about present and future implications of swift global transportation

Concepts

There are many kinds of aircraft.

Aircraft serves people in different ways.

Aircraft fly at different speeds and altitudes and by different means of propulsion.

Many different workers are required to produce, maintain, and fly aircraft.

Careful training or workers is necessary to make air travel safe.

The speed and ease of air travel makes close neighbors of all people in the world.

Ways of traveling are changing rapidly.

Man seeks to improve his ways of traveling.

Objectives

1. To develop an understanding and knowledge of the history of flight.
2. To identify the operation of the Helena Municipal Airport.
3. To contrast the economic importance of aviation in Montana today and in the past - future.
4. To compare the present and future implications of swift global transportation.
5. To learn how some complex skills are necessary and directly related to adult careers and activities.
6. To help students become aware of the various job opportunities in aviation.
7. To develop an appreciation for the contributions of aviation workers to modern living.
8. To develop a respect for the advancements made in aviation.

9. To continue development of understanding about the inter-relationships and interdependence among people.
10. To develop closer ties between the school and resource people in the community.
11. To learn about and to practice obtaining current and specialized information from public and private agencies and companies.
12. To practice using standard reference materials,
13. To enlarge the use of news media - television, radio, newspapers, magazines-to obtain up-to-date and back ground information.
14. To learn how an industry affects the economy of an area.
15. To develop awareness fo how speed of transportation affects the activities of people.
16. To become acquainted with technological advances which create the need for social changes.
17. To develop understanding of how the speed of change in these days is increasing.
18. To practice language arts skills - listening, speaking, reading, writing in a variety of ways.
19. To practice skills in organizing information.
20. To practice map reading skills
21. To practice skills using charts and graphs
22. To encourage using imagination and creativity in dealing with problems.
23. To encourage independent study.
24. To develop social skills in committee work.
25. To develop abilities in sharing information with others.

26. To appreciate the contributions aviation has made to modern economics development.
27. To understand some problems of management and labor peculiar to air transportation and related industries.
28. To emphasize the special role of aviation in the conservation and protection of natural resources.
29. To understand the revolutionary technological changes brought about by the development of mass air transportation.
30. To recognize the many new government services required by the commercial aviation industry.
31. To recognize the potential of the air age toward improving the welfare of mankind.
32. To appreciate the many contributions that scientific research has made to the development of air age.
33. To appreciate the impact of air transportation on the farming industry.

Skills

1. Listening to resource people for information.
2. Writing to various sources in the state for materials and information.
3. Doing research in various kinds of reference materials.
4. Using news media - newspapers, magazines, television, radio - for obtaining current, up-to-date information.
5. Practicing language arts skills - listening, speaking, reading, writing - in a variety of ways.
6. Organizing information for understanding.
7. Reading maps
8. Using charts and graphs

9. Developing imagination and creativity
10. Working independently
11. Working in groups

Activities

Can be used for introductory activity to stimulate interest in Aviation.

1. Invite a qualified local resource person to come and talk with the class about general aviation in Helena. One such as _____
2. Suggest that children write down any questions they may think of about aviation while he is speaking.
3. He talks about flying a general, tell about a simulated flight in single engine aircraft from one city to another in Montana.
4. He simulates typical conversation before and during the flight with himself as pilot, weatherman, flight service personnel and ground and tower controllers.
5. Use Montana Aeronautical Chart to show route of Flight.
6. FAA flight plan blanks to notify flight services of his trip.
7. Picture of aircraft to demonstrate pre-flight check and control of aircraft in flight.
8. Drawing of magnetic compass to show directions.
9. Show film sound and color movie -- Montana Aeronautics Commission, phone 449-2506
   "Montana and Its Aircraft"- 1969 - Color 28 minutes
   "Airport America" - color 14 minutes
   "Agriculture Aviation" - color 14 minutes

Filmstrips and records -- Aviation -- "Where Career Opportunities Are Bright" , - 28 minutes

10. Arrange attractive display of pictures of aircraft, books about flying, airplane models, recent newspaper and magazine articles about flying. Encourage discussion of flying to discover what children already know and what they would like to learn about aviation.
11. Introduction to the importance of aviation in Montana. Begin with general discussion about aviation career encourageing the children to tell what they know about it.
12. Ask for guesses about the number of airports in Montana and the number of people that work there.
13. Using the map, locate airports marking them with red planes or some identifing markings.
14. Discuss some of the different purposes people have for using the airport. Make a list.
15. Private property: Many persons own private airplanes. The planes used by an airline company are owned by the people who own stock in the company.

    Prepare a list of the airlines which service your city or state.
16. People frequently can choose among several different airlines. They can choose the airline which departs when they want to and which has the type of service they wany (first class, economy, or toursit.)

    Discuss the various reasons for choosing a particular airlines when one travels. Compare the cost of flying first, tourist, and economy class.
17. Many airline companies serve us. Each company tries to

offer the best service and food at the least price so that people will become its customers. Collect advertising material from various airline companies. Compare service and prices.

18. Many people work for the airlines. Pilots and co-pilots are specially trained for their jobs. Their training takes much time. The men who weight baggage and place it on the planes need less training. Pilots and co-pilots receive more pay for their work. Their responsibility is great. Hear the story "About the Airplane at the Airport."

19. Many services are rendered by airline companies. The people who perform these services are hostesses, stewards, pursers, maintenance crews, ticket salesman, pilots, co-pilots and navigators. All of these have gone to school to learn how to do their jobs. They are better paid for their work than people who have not gone to school. Dramatize the services performed by various airline personnel.

20. Encourage the children to look for newspaper articles and books about flying and careers in flying to bring to share with the class.

21. Encourage children to read books about aviation occupations plus general information or specific information about some career that appeals to them.

22. Help children begin research on questions about aviation occupations.

a. aircraft building industry

b. aircraft sale industry

c. aircraft service

d. air transport pilot

e. commercial pilot

f. charter pilot, crop spraying, retarted dumping

g. fix base operator

h. airport managers

i. airport maintance

j. airport construction

k. pipe line propellers

l. game controlling

m. stewardess

n. cabin attendance

o. ground service (ticket sale), public relation service, terminal assistance, travel agencies

p. flight instruction

q. aviation education

23. Most of the mail today goes airmail. Most of our parents had to send letter at a special airmail rate when they were young. Read the story THE AIRMAIL - JENNIES TO JETS.

24. Aluminun is used in building airplanes. Aluminum comes from a mineral called bauxite. Bauxite is a natural resourse. It is expensive to mine bauxite deposits on the map. In Columbia Falls, Montana it is made into usable material. Find out about the process.

25. Many men are needed to build airplanes. People are needed to keep planes clean and in running order. Without these people we would have no airplane to fly. Build and fly a model airplane.

26. Writing letters requesting information.

a. Work together as a class or divide into small groups to plan and compose letters.

b. Indicate the information is requested for classroom study of aviation and aviation careers.

c. Ask for information such as pictures, employment figures, amount of money going into the community because of the industry, world-wide scope of sales, and any other pertinent social or economic data.

d. Write to:

Education Manager
Beech Aircraft Corp.
Wichita, Kansas 67201

Education Manager
Cessna Aircraft Co.
Wichita, Kansas 67201

General Manager
Lear Jet Industries
Municipal Airport
Wichita, Kansas

General Manager
Boeing Aircraft Co.
Wichita, Kansas
Seattle, Washington

General Manager
Helio Aircraft Co.
Pittsburg, Kansas

Director
Breech Training Academy
Trans-World Airlines
Overland Park, Kansas

(Training school for all TWA air hostesses

Director
Aviation Division
Department of Economic Development
State Office Building
Topeka, Kansas 66612

27. Airplanes are produced in factories. Airlines desire ever larger and improved airplanes for use of their passengers and cargo chippers. Factories produce what airlines want. Many people plan and work to give the airlines the planes they want. Paint a mural showing various types of passenger and cargo airplanes.

28. It takes people working together to provide us with air transportation. Each airline hires someone to be the boss

over all the other employees. It is his job to see that the others do their work so airplanes are ready for use when they are needed. Interview the manager of the airport. Ask questions about his job.

29. Trip to airport

    a. Be sure the men who are taking children to the airport know the date of trip and the time you expect to leave and return to school

    b. Review with the children where they will go and how they are expected to behave.

    c. Visit

        1. Airport terminal building
        2. Weather Bureau
        3. Control tower
        4. Private flying service
        5. Vo-Tech Aviation School

30. Jet trip from Helena, Montana to Washington D.C. for teacher and pupils and elementary counselor.

31. Planning reports to class about trip and the occupations they observe in connection with the airport.

32. Make reports to class about trip and particular occupations (try to schedule groups so there is a variety in presentation if over one period of time)

33. Write thank-you notes to those furnishing time and expediture evolved around trip to airport.

34. Make a mural, individual pictures, model, etc. of the occupations stations that most interested them.

35. Survey of rapid advances in aviation since Wright Brothers.

Materials: Library books, including biographies
Standard reference books

1. Discuss some of the vents and developments of recent aviation history, such as:
   a. Air mail service
   b. Passenger service
   c. Flying safety
   d. Airports
   e. Larger and faster aircraft
   f. Jet aircraft

36. Encourage children to do independent research on one of the aviation subjects which interests them.

37. Encourage them to read biographies of some of the famous pioneers in aviation, such as Orville and Wilbur Wright, Charles A. Lindberg, Amelia Earhart, and others

38. In discussions about these events, try to get the children to discover the rapidly increasing pace of developments in aviation and the type of job opening that have evolved.

39. Organizing information about aviation in Montana and U.S.

Materials: Information received from aircraft manufacturers
Information received from TWA Academy
Information received from Aviation Division

a. This part of the unit will depend on the material that is sent in response to the children's letters written at the beginning of the unit.
b. The form of the material will determine to a great extent the number and kinds of activities required.
c. The purpose of these activities will be to discover

the great economic importance of aviation in Montana in terms of jobs, money going into circulation, etc.

40. Expanding the vision

a. from aviation in Montana to world-wide aviation

b. from small private aircraft to huge commercial airliners

c. from the past and present to the future

Materials: Newspaper and magazine articles
Pictures or models of huge jetliners
Information from major airlines

a. To set the stage for this change of pace and direction, the teacher can arrange an attractive display of new materials pertaining to the airlines current and future plans.

b. The teacher will need to collect this material in advance to have it ready when the class is ready for this part of the unit. Keep on the lookout, also, for current newspaper and magazine articles and pictures, television news stories, and even attractive and colorful magazine ads by the airlines and attractive airline brochures.

c. This unit, until now, has been dealing with the realities of the past and present in aviation, with emphasis on general aviation in Montana. Now, the children have the challenge of turning their imaginations loose and stimulating their creativity in contemplating the future.

d. The main theme in this concluding area of this unit is a consideration of ways in which our rapidly advancing technology creates needs for additional changes, including some new social relationships.

41. Various food, flowers and mail are flown to us by airplanes

from many parts of the world. We depend on other countries to grow and ship to us food and flowers which we do not grow in the United States and to handle mail for us in their country. People in other countries depend on the United States in goods and services. Airplanes have speeded the exchange of goods among nations. Construct a bulletin board showing the types of cargo important to the business of air transportation.

42. In early time man could travel only on land. Travel was slow and difficult because of many rivers, mountains and rough land over which he traveled. Today man can travel through the air and can transport things rapidly from one place to another in an airplane. He's not bothered by land, he can fly over it. Measure the distance and calculate the travel time between various points in the country by land and by air.

43. Plan a trip

    a. Do planning in class together or in small groups, what occupations you would have to call on to help plan a trip competently.

    b. Use charts and maps to select routes and determine mileage (air miles compared to road miles)

    c. Make comparisons of routes, mileage, time, the trip would take, scenery along the way, historical landmarks, etc.

44. Many families travel by airplane. Before a family can buy its tickets, it must plan to save the money necessary for the fare. Determine the amount for a family for a particular trip. Plan how much the family should save each month so that the fare will be available when it is needed.

LANGUAGE

Interpret photographs or small models of planes to compare and contrast their appearance. Discuss relationships between their construction and their service to people, cargo planes, airliners, ski planes, military planes, gliders, helicopter. Point out important parts and their function, navigation lights, landing gear, instruments, cockpit, engine, propeller, wings, tail, fuselage.

Report on the job and qualifications of plane workers, pilots, co-pilots, stewardess, ticket agents, control tower officer, ground crewmen.

Play the role of a commonly unseen worker at the airport Discribe one's job as mechanic, weatherman, maintenance man, chef.

Discuss the dependence of neighborhood people upon the airport. From personal or class experience, give examples centering around a post office, food store, florist shop, or medical laboratory.

Listen to a description of an air trip by a pupil, teacher principal, family member, neighborhood friend. Ask questions about additional, desired information.

Make a picture-word chart - parts of planes, installations at an airport, uniform of men in air aviation.

List things to look for and questions to ask on an excursion.

Write riddles and poems about planes, plane workers, and the airport.

Record important ways in which aircraft help a community transport people, mail and products - bring aid to ill and lost people, fight forest fires, spray crops, survey property.

Make a dictionary about air travel words

Write rules for safe and courteous behavior preceding a trip to the airport or an air travel office

Help to write a continued story for the classroom library about an air travel topic. Have each child write one new page or episode for the book.

Make an individual air travel booklet for the classroom library. Include such items as lists of information, the story of a real experience, an original story or poem, riddle, labeled drawings, new and old magazine clipplings with comments.

Write a story about "Why I Want to be a Airplane Mechanic" or some other aviation worker.

Provide signs for a classroom airport construction, and or play plane, ticket office or travel agency, a bulletin board exhibit or airplane materials

Thank you letter for resource people and field trips

READING AND LITERATURE

Listen to television or radio news stories about air or space travel, and interpret press and magazine clippings about air

craft in the news, Reserve a bulletin board section for current event items such as these.

Collect and read newspaper and magazine advertisements about commercial flights. Locate destinations on map or globe.

Have a peotry party. Share favorite poemes about airplanes by saying and reading them.

Look up and read topics in the encyclopedia for pictures and information about famous aircraft inventors and pilots - Orville and Wilbur Wright, Charles Lindbergh or listen to the teacher read the topics.

Look over science books to locate passages that pertain to air travel. Mark with colored slots of paper for quick reference in the library.

Read science books to become able to compare the flight of a hummingbird with that of a helicopter.

Consult a dictionary or other reference books to learn the functions of some main parts of a plane - propeller, wings, fuselage, cockpit.

Clarify the meaning of interesting and important new words presented in interviews, films and books.

Summarize information obtained from books, films, interviews, reports, and pictures. Letter charts for classroom use: How Planes Help, Preparing Planes for Flights.

Star cities on a United States map to show flights made by classmates, family members, teacher and friends. Plan an interpretive key for the map.

One world globe, find countries to show flights made by classmates, family members, teachers and friends. Provide an identification key.

On a local map, trace the route traveled from school to reach the City Municipal Airport.

ARITHMETIC

Make up story problems about purchasing airmail stamps.

Obtain information about air postal and air express rates and delivery time. Compare with regular mail and express services, and discuss reasons for differences in cost.

Learn the baggage limitations for flights. Use the school scales to weigh up the amount.

Compare early and modern planes as to seating capacity and over-all size.

Compare the speed of old and new planes and space craft- piston-powered type, turbo prop jet and space rocket. Make a simple line graph to represent the comparative distances traveled in one unit of time - an hour, a minute.

Compute how many years ago the Wright Brothers made their first flight. In the school yard measure off the distance traveled. With a stop watch measure the duration of their flight. Compare these statistices with modern

flight.

Science

Perform experiments with air to determine the relationship of air to flight.

Perform experiments to show the relationship between basic machines and ways of loading and unloading passengers and cargo.

Study wind instruments and light signals used at the airport to determine their usefulness to planes

Make glider models and fly them. Observe the air capacity to support solid objects.

Make and try out a cloth parachute by taping the corners of a handkerchief to a small plastic toy.

Discuss how weather affects flying. Follow local weather forecasts for a week, and discuss their implications for safe flights.

Stretch colored yarn on a map or globe to show flights taken by the President and other people of current interest.

Begin study of weather

1. Study properties of air as directly related to principles of flight and what makes an airplane fly.
2. Weather study of clouds, winds and other weather features which have a direct influence on aviation.
3. A study of careers in weather observation and forecasting.
4. Resource person from the weather bureau - Cordell Grayson

Meterologist , Helena, Montana ph. 442-9049

Shneider: Science in Our World: D.C. Health Company 1968

Lexington, Mass Chapter One "Weather Forecast"

Planning trip to airport - map or diagram of local airport.

1. Small groups guided by men of the airport to explain familiar and various functions of the airport. Divide class in small groups.
2. In advance, discuss who will take the children and what they will see at the airport.
3. Have children discuss how and what they saw or learned from the trip.

HEALTH AND SAFETY

Find newspaper clippings or write a story to tell how an airplane or a helicopter rescued people from dangerous situation or prevented a serious illness.

Find out how food is prepared for air passengers and how it is kept in good condition until serving time on the plane.

Play the role of stewardess attending to the health and safety needs of air passengers.

Give a report on safety precautions for passengers, air workers and planes. Compare with safety precautions for land travel.

Give a report on how airplane help in the preservation of our natural resources.

Find out how much noise polution air traffic is bringing to the Helena area.

Decide if air travel is promoting any other forms of pollution

to Montana.

ART

Construct a simple play plane in the classroom. Make a switch to practice elementary operations for flying.

Construct plane or rocket models using small boxes, pieces of cardboard and other materials.

Make a picture map of an airport visited or a floor or table representation of an airport.

Paint a mural about different things seen in the sky and at the airport.

Make mobiles of different types of airplanes or items about air travel - safety beacon lights, weather maps, pilot's cap.

Produce small dioramas about airport scenes or airplanes serving people in special settings.

Make a picture so some part of the neighborhood as it would appear from a plane - then reproduce it in map form.

Paint pictures to show the airplane views of scenes below city, farm, beach, ocean, forest, ranch, desert, lake.

Develop pictures for play movie about air travel topics.

Helpful Helicopters. Service Planes of the U.S.A. Passenger Plar

Design posters advertising flights to another city or country.

MUSIC

Learn songs about planes and the weather.

Listen to recordings with descriptive music or songs about planes

Imitate airport sounds. Try to incorporate some of them into an original song.

EVALUATION

Have the children better understanding of the purposes of aircraft lighter than air craft,

Do the children sense the importance of air travel in bettering relationships between countries?

Have the children become familiar with some workers services at the airport and in other aspects of aviation?

Do they recognize the importance of safety in air travel?

Do they understand the changes taking place in the field of aviation?

Have they made a start in learning they history of aviation?

Do the pupils find satisfaction in expressing their different interest in air travel in a variety of ways.

Have they shown an increase in initiative, responsibility and in the intelligent use of books and other source materials.

Bibliography for Children

Books - General

Bagwell, Richard	THIS IS AN AIRPORT	Follett	1967
Bishop, Richard W.	FROM KITE TO KITTY HAWK	Crowell	1958
Bowen, Robert	THE AIRPORT, OUR LINK TO THE SKY	Whitman	1961
Clevan, Cathrine	FLIGHT ANGEL	Reilly & Lee	1961
Cooke, David C.	BEHIND THE SCENES AT AN AIRPORT	Dodd, Mead&Co.	1968
	FLIGHTS THAT MADE HISTORY	Putnam	1961
	WHO REALLY INVENTED THE AIRPLANE	Putnam	1964
Corbett, Scott	WHAT MAKES A PLANE FLY	Little, Brown & Co.	1967
Dalgliesh, Alice	RIDE ON THE WIND	Scribner	1956
Eimerl, Sarel	THE HISTORY OF FLIGHT	Golden	1964
Ellacott, S.E.	THE STORY OF AIRCRAFT	Roy	1954
Elting, Mary	AIRCRAFT AT WORK	Harvey House	1964
Gilmore, Horace	MODEL PLANES FOR BEGINNERS	Harper	1957
Gottlieb, William	AIRCRAFT AND HOW THEY WORK	Garden City Books	1960
Lehr, P.E.	STORMS	Golden	1966
Lehr, P.E.	WEATHER	Golden	1965
Lewellen, John B.	THE STORY OF FLIGHT, FROM THE ANCIENT WINGED GODS TO THE AGE OF SPACE	Golden	1959
Lindberg, Charles	THE SPIRIT OF ST. LOUIS	Scribner	
Loomis, Robert D.	ALL ABOUT AVIATION	Random House	1964
May, Charles Paul	WOMEN IN AERONAUTICS	Nelson	1962
McCall, Edith	HOW AIRPLANES HELP US	Benefic	1961
Morrill, Madge	THE WRIGHT BROTHERS, FIRST TO FLY	Abingdon	1955
O'Connor, Mary	FLYING MARY O'CONNOR	Rand McNally	1961
Parlin, John	AMELIA EARHART	Garrard	1962
Pollinger, Gerald John	STRANGE BUT THEY FLEW	Putnam	1968
Settle, Mary Lee	THE STORY OF FLIGHT	Random House	1967
Shapp, Martha	LET'S FIND OUT ABOUT AIRPLANES	F. Watts	1968
Shippen, Katherine	A BRIDGE FOR PEGASUS	Viking	1951
Stambler, Irwin	FIND A CAREER IN AVIATION	Putnam	1960
Stuart, Merrie	ABOUT THE AIRPLANE AT THE AIRPORT	Melmont	1969
Sunderman, James	EARLY AIR PIONEERS, 1862-1935	Watts	1961

Pamphlets

Helicopers and the Farmer's Wing
National Aviation Council 50¢
The Flying Clippers and Aviation's One World in the Jet Age
Pan American
World Airways Reduction Service
2819 Bridge Plaza North
Long Island City, New York

For information about airlines:

Air Transport Association of America
1000 Connecticut Avenue, N.W.
Washington, D.C. 20036

For information about aircraft manufactruers:

Aircraft Industries Association of America, Inc.
610 Shoreham Building
Washington, D.C. 20035

For a wide assortment of educational materials:

National Aerospace Education Council
1025 Connecticut Avenue, N.W.
Washington, D.C. 20036

For educational materials from individual airlines:

Trans World Air Lines
Student Educational Service
605 Third Avenue
New York, New York 10016

United Air Lines
School & College Department
P.O. Box 66141
Chicago, Illinois 60666

For addresses of State Departments of Aviation:

National Association of State Aviation Officials
Suite 405
1029 Vermont Avenue, N.W.
Washington, D.C.

For list of pamphlets on aviation:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Books

Chace, Haile: About the Pilot of a Plane
Melmont Publishers, Incorporated, Chicago, Ill. 1959

Colby: Count Down the Story of Our Missile Bases
Coward-McCann, Inc, New York 1960

Holsaert, Eunice: Outer Space: Holt Rinehart & Winston
New York. 1959

Leavitt, Jerome E. - By Land, By Sea, By Air - The Story of
Transportation - G.P. Putnam's Sons New York 1969

Briehs, Walter: Freight Trains of the Sky: G.P.Putnam's
Sons, New York 1969

Coombs, Charles: Cleared for Takeoff: William Morrow and
Company, New York 1969

Ahnstrom, D.N. The Complete Book of Jets and Rockets - World 1957

Feravolo Rocco V. Junior Science Book of Flying, Garrard 1960

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Tollett Pub. Co. 1955

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& Co. Garden City 1961

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Films

Montana Aeronautics Commission phone 449-2506

Montana and Its Aircraft - 1969 - Color, 28 min.

Agriculture Aviation - Color 14 min

A Fire Called Jeremiah Color 35 min

Film Strips and Records

Aviation - Where Career Opportunities Are Bright 28 min

DIRECTORY OF SCHOOL RESOURCE PEOPLE AVAILABLE THROUGH HELENA KIWANIS CLUB

1971

As one of its public services to the community the Helena Kiwanis Club provides the following list of individuals available to speak to classes on a varietyof topics.

Membership of the Club represents a wide variety of occupations with which members have first hand experience and on which they will be qualified to speak. In addition some members have had experinece of a special nature which will enable them to contrubute to the knowledge of students. Some members listed in the directory are employed by firms that could make additional employees with specialized knowledge and experience available to classes. In such cases members, when contacted, may suggest such persons.

An asterisk before a name indicates that that person will be willing to host a field trip to his place of employment.

Listed with the names are the occupations engaged in, the home telephone number and the business number listed as a second number, the student level on which the speaker prefers to speak, and the topic on which he feels best qualified to provide information.

Teachers are urged to take advantage of this diversified source of information for their classes. In contacting speakers information should be given on the type and level of the class, the interests of the students, length of time at the disposal of the speaker, and whether a question and answer period is desired. For may speakers the question and answer period may be the most effective approach in involving student participation and placing the session on an informal basis.

Members of the Club want this service to be as useful as possible and any suggestions from teachers directed toward this end will be appreciated.

Vocational Guidance Committee

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPIC
*Allen, George	Mgr. J.C. Penney Co.	442-5259	442-7230	Jr.& Sr.Hi. College	Retail Merchandising
Alverd, William	Supt. of Fisheries Fish & Game	442-3189	449-2447	Jr.& Sr.Hi. College	Wild life in Montana Fish Planting and Commercial Fishing
*Anderson, Walter	City Manager	442-9697	442-6850	Any Level	City Government Community Development
*Andrews, William	Pres. Union Bank	442-6009	442-5050	Jr.& Sr.Hi.	How a Modern Bank Serves you
Ballinger, Dr. Wm.	Dermatologist	442-2620	443-3610	Sr. Hi. College	Skin Diseases Skin Care
*Bennett, George	Attorney	442-9855	442-3690	Sr. Hi.	The Legal Profession The Legislative Process
Booth, Ed	Attorney	442-4701	442-8560	Jr.& Sr.Hi. College	The Law and You
Cain, Alan	Attorney	442-7005	442-3690	Any Level	The Legal Profession
Campbell, Wm.	Chief Accountant Montana Power Co.		442-4610	Any Level	How Do We Get Our Electric Power; Public Utilities
Coffey, Dr. Mike	Optometrist	442-5128	442-7199	Any Level	Vision Problems and Their Correction
Dalley, Rex	Ex. Sec'y Mont. H.S. Ass'n	442-5273	442-6010	Any Level	High School Extracurricular Activities; Religion
*Delano, John	Sec'y Montana Railroad Ass'n		442-4810	Any Level	Railroads & Transportation Shotguns
Dightman, Richard	State Meteorologist	442-1100	442-9040 Ext. 3204	Jr.& Sr.Hi. College	Weather Forecasting Air Pollution Problems & Control; Music

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPIC
Dodge, Orville	College Professor	443-3192		Jr.& SR.Hi. College	College Teaching
Erickson, Bart	Attorney		442-7380	Sr. Hi. College	Laws, Courts, & People
*Feller, Al	Insurance Sales	442-5814	442-4630	Sr. Hi.	Insurance & You Sports & Recreation
*Gilluly, Sam	State Historical Society Director	442-2887	449-2694	All Levels Above Gr. 2	Montana & Local History Careers in Journalism
*Grose, Steve	Home Bldg, & Loan Sec'y - Treas.	442-3755	442-6142	Sr. Hi. College	Savings Plans & Financing Home Purchase Through Bldg. & Loan Associations
Grove, John	Fire Control Officer Forest Service	442-1488	442-9040	Any Level	Effect of Mining Activities on Nat'l Forests Land Use Planning & Zoning Power Consumption Effect on Basic Resources
Harrington, Father Joe	Pres. Carroll College	442-9702	442-3450	Depending on Topic	Will Supply Speakers from College on Variety of Subjects
*Harrison, James(Tom)	Attorney	442-9193	442-6350	Any Level	A House Majority Leader Views the Legislature
*Harrison, John	Associate Justice Supreme Court	442-5833	449-2626	Any Level	Court System Air Pollution Tuberculosis
*Hase, Ernest	Sup't American Smelting & Refining Co.	442-8181	227-5311	Sr. Hi. College	Chemical Engineering Ore Refining
Howard, Stan	County Extension Agent	442-2089	442-9110	Sr. Hi.	Agriculture, Gardening, Conservation Practices

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPIC
*Holliday, Dave	General Manager KBLL Radio & TV		442-6620	Any Level	State & Local Government Radio & TV Broadcasting
*Homstad, Gerald	Mgr. J.M.McDonald Co.	443-3632	442-6290	Sr. Hi. College	Retail Merchandising
*Ingram, O. F.	Construction Contractor	442-0789	442-5102	Sr. Hi. College	The Construction Industry
*Jesperson, Gary	Civil Engineer Highway Department	458-5614	449-2489	Jr.&SR.Hi. College	Highway Department and Our Public Road System
*Jorgensen, Henry	Elementary Principal Central School	442-8343	442-5620	Any Level	Local Gov't, Taxation, Education Helena Water System (with slides)
*Knous, Howard	Vice Pres. Federal Reserve Bank	442-8724	442-3860	Any Level	National Monetary Policy Federal Reserve System
*Kralicek, Ed.	Dental Technician	442-8521	442-7886	Any Level	Dental Supplies Produced in Laboratory
*Linsted, Robert	Merchandising Home Furnishings & Kitchen Appliances - Rucker's	442-6048	442-2703	Jr. & Sr.Hi.	Interior Decorating and Home Planning
Loble, Lester	Retired District Judge	442-4804		Any Level	Lester Loble Foundation Judicial System
*Lucht, Archie	Jr.Hi. Principal	442-7945	442-5720	Any Level	Schools; Political Career; Border Patrol
Massman, Hugh	Attorney	442-7684	442-2111	Any Level	Practice of Law Cooperatives

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPIC
*McHugh, Ed.	Dairy Manager	442-7076	442-0080	Any Level	Sanitation, Food Preparation Dairy Farming, Manufacturing, and Sales
Melton, Dwight	Personnel Director St. John's Hospital	442-9484	442-1210	Sr. Hi.	Careers in Hospital and Food Processing Fields
*Morrison, John	Civil Engineer	442-5085	442-3050	Any Level	Architectural Planning and Construction
Murdock, Les	Investment Broker	442-7461	442-7053	Jr.& Sr.Hi. College	Services of Investment Broker Stocks and Bonds;Stock Exchange
Murray, Wallace	Montgomery Ward Sales Manager	443-3428	442-7710	Any Level	Mail Order Merchandising Sports & Recreational Activities
*Heath, Ernie	Executive Sec'y of Masonic Home Trusties	442-6483	442-3730	Jr.& Sr.Hi.	Radio & TV Broadcasting Music Education Institutional Care of Elderly People
Nelson, James	Personnel Director St. Peter's Hospital	458-5334	442-2480	Any Level	Careers in Hospital Field Make Available Speaker on Any Health Care Topic
Nicolet, F. W.	Salvation Army	442-4052	442-4020	Any Level	Careers in Social Work Counseling Handicapped & People with Problems
Ogren, Mel	Retired H.S.Principal and Science Teacher	442-6456		Sr. Hi.	Education Outdoor Recreation
Patrick, Chase	Vice President First Nat'l Bank	442-7562	442-2540	Jr.& Sr.Hi.	Credit Management Problems of Handling Money Legislation

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPIC
*Pattison, Al	Director of Y.M.C.A.	442-9202	442-2386	Any Level	Y.M.C.A. Activities Camping - Gen'l Recreation
Pyfer, Clark	Certified Public Accountant	227-6287	442-5520	Sr. Hi. College	Accounting Careers Esperento(Internat'l Language) Taxation - Service Clubs
Remington, George	Publisher Independent Record	442-6400	442-7190	Sr. Hi. (Field trips by Jr.&Sr.Hi.)	Newspaper Publishing News Reporting; Film on "Careers in Journalism"
*Sharp, Jack	District Manager Social Security Adm.	442-2731	442-9040 Ext. 3208	Jr.& Sr.Hi. College	Social Security Program
*Shope, Richard	Architect	442-0755	442-9410	Sr. Hi. College	Architectural Services City Planning
*Slaughter, Glenn	Loan Officer Small Bus. Adm.	458-5832	442-9040 Ext. 3381	Sr. Hi. College	Accounting; Business management & Financing; Fed'l Gov't as your employer
*Smith, Jack	Naegele Office Supply	442-1779	442-9400	Any Level	Modern Office Supplies & Equipment
Sparing, James	Mountain Bell Telephone Co. Engineer	442-1461	449-3500	Elementary Jr.& Sr.Hi.	Engineering a complex Telephone Network System
Spurgin, Dr. C.A.	Dentist	442-3429	442-1870	Elementary	Conservation of Teeth Through Proper Care and Dental Services
Steen, Russell	Administrator Shodair Hospital	442-4180	442-1980	Any Level	Shodair Hospital Services Health Occupations
Sternhagen, Wm.	Attorney	442-9241	442-0070	Any Level	Legal Services;Law Enforcement Consequences of Breaking Laws
*Sweeney, Al	Supervisor Mountain Bell	442-7214	449-2300	Jr.& Sr.Hi. College	Telephone Communications

NAME	OCCUPATION	HOME TEL.	BUS. TEL.	LEVEL	TOPICS
Thompson, Ken	Mgr. Centralized Warehousing and Truck Brokerage	442-3872	442-3312	Sr. Hi. College	Wholesale Merchandising Centralized Warehousing
Tiddy, Dr. Wm.	Dentist Dentist for Boulder River School	442-6572	442-1130	Any Level	Dental Profession Handicapped, Mentally Retarded Children
Tuck, Nolan	Mgr. Ambassador Drug	442-0642	442-2196	Jr.& Sr.Hi.	Prescription Drugs
Valentine, Cpt. Edmund	Sr. Army Advisor	442-7984	442-7984 Ext. 3207	Sr. Hi. College	The Armed Forces
Vladic, Don	Mgr. Garrett Freight Lines	442-4920	442-2259	Jr.& Sr.Hi.	The Role of Trucks in Freight Transportation
Weber, Alfred (with Ernie Heath)	Organist	442-2454		Jr.& Sr.Hi.	Professional Music as a Career
Wix, Robert	Administrator Deaconess Home	442-8334	442-7920	Any Level	Problems of Youth The Deaconess Home
*Yuhas, Quintin	Millwork Contractor	442-5346	442-4707	Any Level	Contracting, Constructing, Cabinet Furnishings Chemistry

*Individuals listed with an asterick have indicated willingness to host a field trip by a class to their place of employment.

(Appendix F)

STUDENT - TEACHER POPULATION
1970 - 1971†

SCHOOL	NO. TEACHERS	GRADE LEVEL						
		Sp. Ed.	1	2	3	4	5	6
HAWTHORNE	3	0	0	0	0	1	1	1
CRA	4	1	2	0	0	0	1	1
BROADWATER	6	0	0	0	1	1	2	2
CENTRAL	5	0	1	2	0	2	0	0
JEFFERSON	8	0	1	2	0	0	2	3
RAY BJORKE	10	0	1	1	2	3	0	3
SMITH	3	0	0	0	1	1	1	0
ROSSITER	11	0	3	2	3	2	1	0
BRYANT	8	0	2	0	2	1	2	1
LINCOLN	7	0	2	0	1	3	1	0
MAY BUTLER	0	0	0	0	0	0	0	0
TOTAL	65	1	12	7	10	14	11	11

†Figures are for April 1, 1971 - June 12, 1971 only.

(Appendix F)

STUDENT - TEACHER POPULATION
1971 - 1972 †

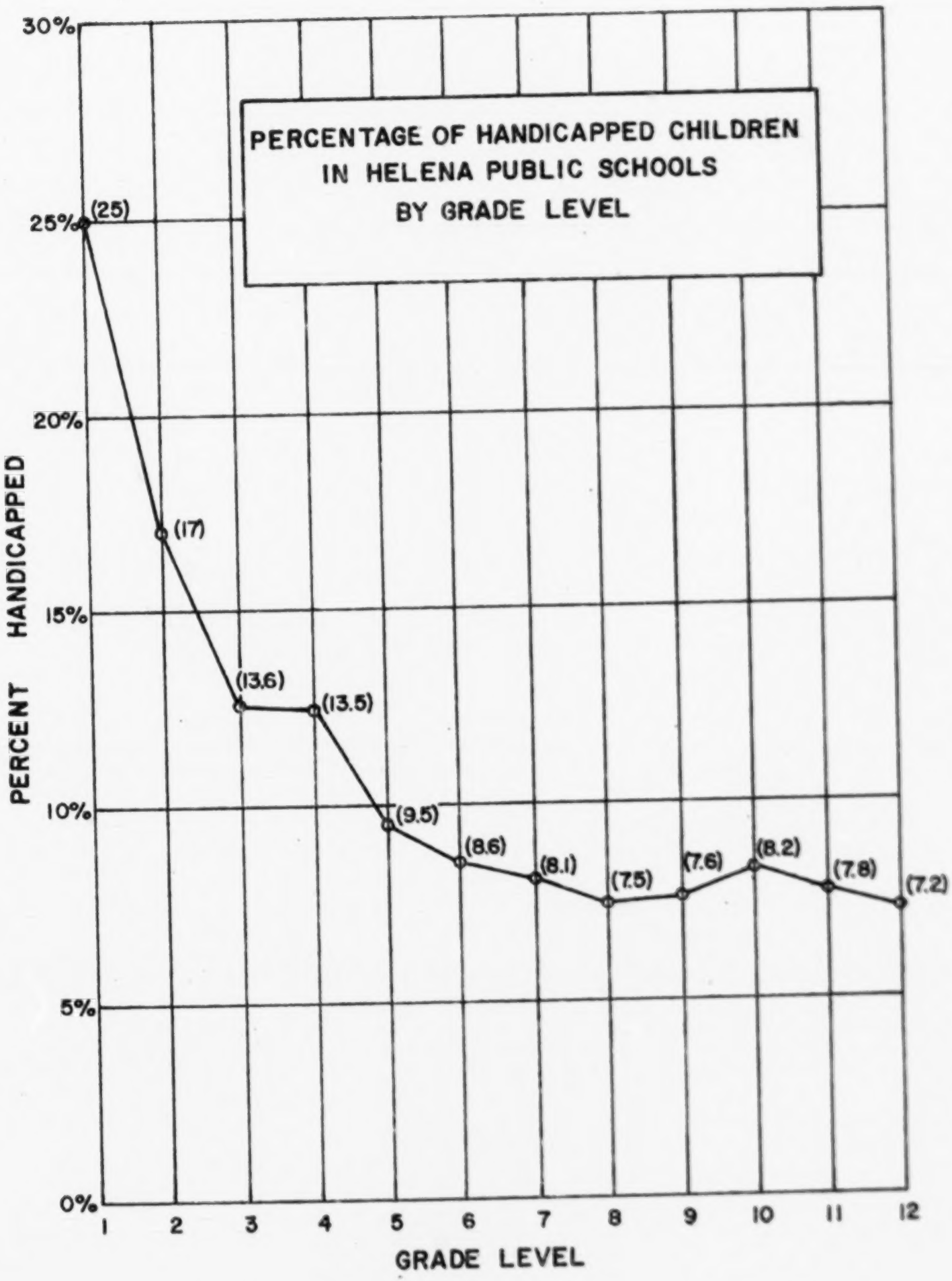
SCHOOL	NO. TEACHERS	GRADE LEVEL						
		Sp. Ed.	1	2	3	4	5	6
HAWTHORNE	3	0	0	1	0	1	0	1
CRA	7	0	0	0	0	1	1	5
BROADWATER	6	0	0	3	0	1	0	2
CENTRAL	10	0	2	2	2	3	0	1
JEFFERSON	3	0	1	1	0	1	0	0
RAY BJORKE	4	2	1	0	0	0	1	2
SMITH	7	0	0	1	2	1	2	1
ROSSITER	9	0	3	3	1	1	1	0
BRYANT	4	0	1	0	1	1	0	1
LINCOLN	6	0	2	1	2	0	0	1
MAY BUTLER	0	0	0	0	0	0	0	0
TOTAL	59	2	10	12	8	10	5	14

†Figures are for September and October only.

JOB OBSERVATION FIELD TRIPS

November 1, 1970 tc October 31, 1971

GRADE LEVEL	STUDENTS	FIELD TRIPS
1	195	7
2	199	5
3	119	4
4	141	5
5	217	6
6	204	5
7, 8, 9	540	6
TOTAL	1615	38


PERCENTAGE OF HANDICAPPED CHILDREN
IN HELENA PUBLIC SCHOOLS
BY GRADE LEVEL
PERCENT HANDICAPPED
30%
25%
20%
15%
10%
5%
0%
(25)
(17)
(13.6)
(13.5)
(9.5)
(8.6)
(8.1)
(7.5)
(7.6)
(8.2)
(7.8)
(7.2)
1
2
3
4
5
6
7
8
9
10
11
12
GRADE LEVEL

(Appendix G_1)

HANDICAPPED STUDENTS

	GRADE LEVEL											
	1	2	3	4	5	6	7	8	9	10	11	12
Hard of Hearing	24	18	16	17	14	15	19	18	21	24	23	22
Language & Speech	84	61	44	38	27	21	17	16	13	9	7	5
Cleft Lip & Palate	1	0	1	0	1	1	2	0	0	0	2	0
Convulsive Disorder	0	0	1	4	2	1	1	2	2	4	2	2
Cerebral Palsy	0	1	0	1	0	0	0	1	0	0	0	0
Orthopedic	1	3	1	1	0	0	2	5	0	1	2	2
Poor Vision & Amblyophia	0	1	1	1	2	4	3	0	4	5	6	3
Cardiac	2	0	0	0	0	1	0	1	1	4	3	1
Asthma, Hayfever, Eczema	4	2	1	5	2	1	4	1	3	3	1	6
Diabetes	1	1	0	1	2	1	1	1	2	1	3	0
Other Conditions	6	2	3	5	2	2	1	2	2	5	3	2
Total	123	89	68	66	52	47	50	47	50	56	42	43
Total Enrollment	498	526	509	490	547	555	612	622	659	684	661	601
Percent Handicapped	25	17	13.6	13.5	9.5	8.6	8.1	7.5	7.6	8.2	7.8	7.2

MENTAL RETARDATION

Trainable	10
Primary	12
Beg. Primary	8
Beg. Intermediate	14
Intermediate	12
Jr. High	16
Sr. High	14
Total	86

1.14% Total Students

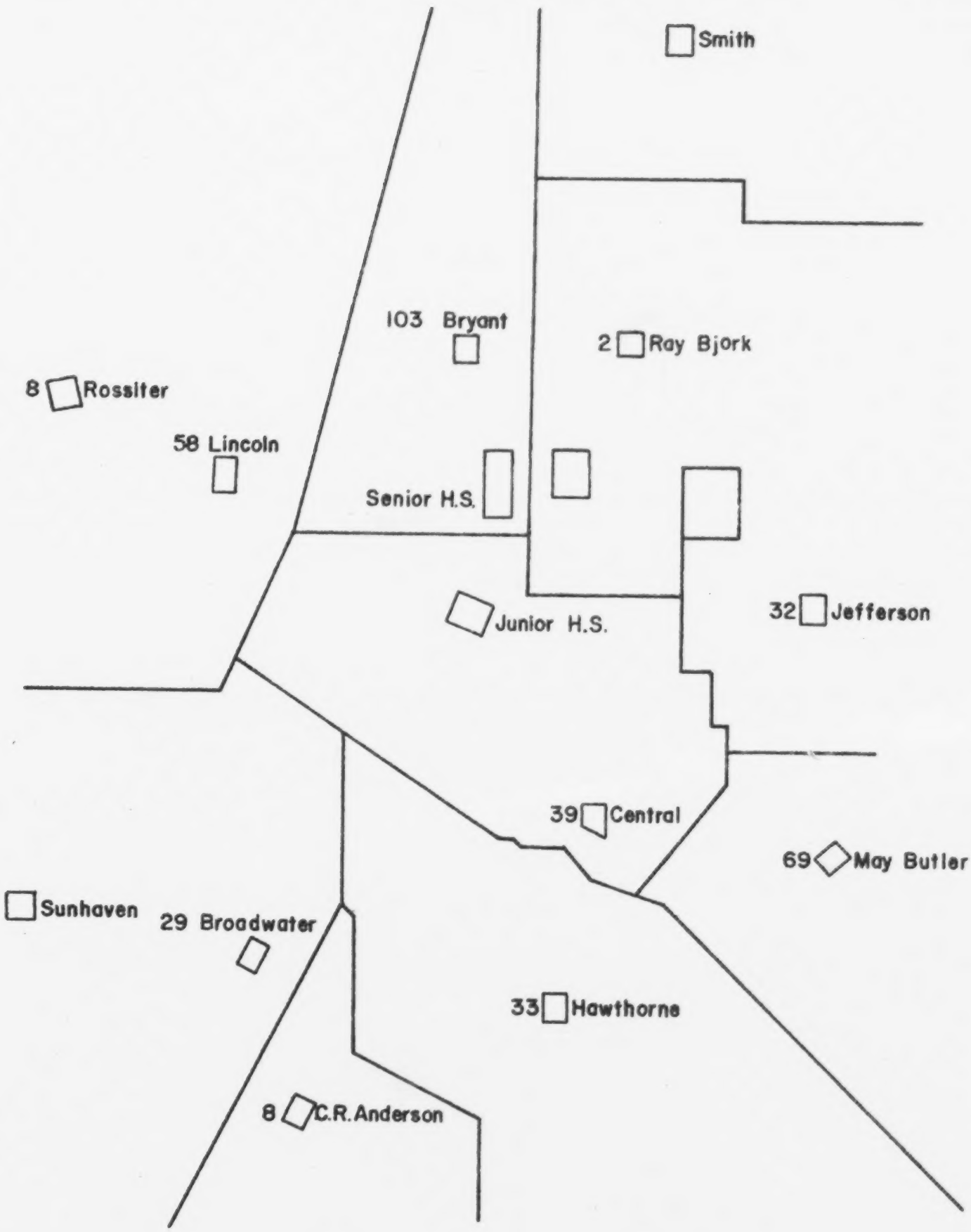
DLC

Elementary	90
Jr. High	36
Sr. High	18
Total	144

1.92% Total Students

(Appendix H)

NUMBER OF CHILDREN (ADC) PER SCHOOL AREA
JUNE, 1971



TOTAL 413 UNKNOWN 12

APPENDIX I

INITIAL BUSINESS CONTACTS

A. A. GARAGE

KIPS ENCO

LAST CHANCE 66

HUSKY STATIONS

HOLIDAY TEXACO

EBERT'S CONOCO

DOWNTOWN 76

Abel's Conoco

BAIR'S
BOB'S CAPITOL STANDARD SERVICE

RICH'S HIGHWAY 66

TRIANGLE STANDARD

DAN'S CEDAR ST. TEXACO

DEAN'ENCO

DON'S PROSPECT

HOLIDAY CHEVRON

SANDERSON CONOCO

SPANGRUDE TEXACO

SUPER AMERICA

MIX 76

PARK ENCO

URIE COOK TEXACO

INTERSTATE ENCO

CAPITAL CHEVRON

PLACER MOTORS

SEARS

KRUSE LUMBER, INC.

HENNESSYS

RUCKER FURNITURE & APPLIANCE

PETERSON LUMBER

DODGE CITY

ALBERTSONS

BUTTERYS

SAFEWAY

CONVENIENT MART

CIRCLE K two locations

ZALE'S

BROWNS SPORTING GOODS

CAPITAL SPORTING GOODS

PENNEY'S

PALMQUIST ELECTRIC

HELENA LETTER SHOP

ALLEN ELECTRIC

THURBER'S

INDEPENDENT RECORD

NAEGELE'S

WESTERN DRUG

SAVE-WAY DRUG

SUPERSAVE DRUG
OSCO DRUG

STATE PUBLISHING

FRITZ AUTO

EVALUATIVE MEASURES

Evaluation is a continuous process that takes place throughout the unit. An attempt to evaluate the effectiveness of the methods, materials, resources and organization would be through answering the following questions.

RATING SCALE

Indicate the degree to which these questions are utilized by circling the appropriate number. The numbers represent the following values: 5- outstanding, 4- above average, 3- average, 2- below average and 1- unsatisfactory.

1.	How receptive were the students to the activities?	1	2	3	4	5
2.	How actively involved were the slow learners in the activities?	1	2	3	4	5
3.	How well did the slow learners have positive successful learning experiences.	1	2	3	4	5
4.	How prepared were the students for field trips and job observations?	1	2	3	4	5
5.	How well were the students applying basic curriculum skills such as math and reading, when working with this unit?	1	2	3	4	5
6.	How well have the students gained insight into the complete process of the particular occupation studied?	1	2	3	4	5
7.	How well did the children cooperate in group work.	1	2	3	4	5
8.	To what extent did outside or community resources contribute to the unit?	1	2	3	4	5
9.	How well did the outside resources contribute to the unit?	1	2	3	4	5

CHECK LIST

Please indicate with an X, the appropriate response to the following questions. If you feel an unbiased judgement cannot be made, please leave the responses blank.

	Yes	No
1. Did attendence improve	___	___

2. Were the students learning to work more independently than they could when the unit began? ____ ____

3. Have grammatical skills improved ? ____ ____

4. Was there growth in thinking objectively ? ____ ____

5. Did the students become independent in their decision making? ____ ____

6. Was there pride in being part of a team achieving objectives? ____ ____

7. Was there evidence of sharing materials? ____ ____

8. Were the learning experiences varied enough for each child to be motivated to participate in the project? ____ ____

9. Were some gifted students inspired to begin new projects as an outgrowth of their experiences? ____ ____

10. Were pupils given a chance to participate in planning for experiences? ____ ____

11. Were self concepts changed for some students as a result of this project? ____ ____

12. Did the pupils show enthusiasm throughout the unit? ____ ____

13. Are the pupils more aware of the satisfaction that can come from being engaged in work? ____ ____

14. Were the pupils given the opportunity to evaluate the success of the project? ____ ____

15. Did the students have the opportunities and experiences that involved student action rather than just reading or reading about them? ____ ____

Please add any comments which would contribute to the improvement of this unit.

CAREER ANALYSIS

At some time, in some way, with or without the help or influence from peers, parents, teachers, counselors, or other individuals, every person who chooses an occupation looks at various opportunities which he thinks are open to him, compares them, and selects, the one which most appeals to him. He may do this thoroughly, systematically, and realistically, he may do it casually, impulsively, or fancifully.

Students differ in their need for occupational information just as their interests, aptitudes, and abilities. Some need a great deal of information, some need little or none, and some are already in a position to supply it. The main emphasis at the elementary level, as far as occupations are concerned, is that the students have a chance to analyze various careers. The career analysis should tie together instruction, self analysis, classroom activities and projects. The career analysis could serve as a good discussion point prior to or following a speaker or following a job observation fieldtrip or as a culminating activity of the unit. For our purposes a career analysis involves the following: job title, qualifications, work or tasks performed, work environment, preparation, entrance, earning, number and distribution, of workers, advantages and disadvantages.

1. JOB TITLE

2. QUALIFICATIONS
   A. Age. What are the upper and lower age limits for entrance and retirement?

   B. Sex. Is this occupation predominately a male or female occupation?
      Are there reasonable opportunities for both?
      Is there any more active demand for one than the other?

   C. Height and Weight. Are they any minimum or maximum requirements?
      What are they?

   D. Other Physical Requirements. Are they any other measurable requirements?
      e.g. 20-20 vision, freedom from color blindness, average or superior hearing, physical strength etc.?

   E. Aptitudes. Has there been any research on aptitudes required, e.g. minimum or maximum intelligence quotient, percentile rank or specific tests of mechanical aptitude, clerical aptitude, finger dexterity, pitch discrimination, reaction time, etc.?

   F. Tools & Equipment. Must these be supplied by the worker at his own expense?
      What is the average cost?
      Can they be rented or bought on credit?

   G. Legal Requirements. Is a license or certificate required?
      What are the requirements for getting it?

   H. Citizenship. Is it required?

   I. Residence. Must the worker be a resident of the city or state in which he is employed?

3. WORK OR TASKS PERFORMED.

   A. What is the work of a typical day, week, month, or year?
   B. What are all the things a worker may have to do in this occupation, the

pleasant things, the unpleasant things, the big and little tasks, the important responsibilities, and the less glamorous details?

C. Does he deal mainly with data, people or things?
D. What kind of tools, machines, and materials does he work?
E. Must he walk, jump, run, balance, climb, crawl, kneel, throw, stand, turn, lift, stoop, crouch, sit, reach, carry, push, finger, pull, feel, talk, hear or see?
F. Must he travel? If so, where and when?

4. WORK ENVIRONMENT

A. In what kind of surrounding is the work done?
B. Is it hot, humid, dry, wet, dirty, noisy, outdoors, indoors?
C. Is the worker exposed to sudden changes of temperature, offensive odors, vibration, mechanical hazards, moving objects, burns, electric shock, explosive, radiant energy, toxic conditions or other hazards?
D. Does he work in cramped quarters, in high places, or in any other unusual location?
E. Are the lighting, ventilation and sanitation adequate?
F. Does he work with others or alone?
G. If with others what is the relationship to them and does it place him in a position of superiority, inferiority, equality, conflict or stress?

5. PREPARATION

A. Distinguish between what is desirable and what is indispensable.
B. How much and what kind of preparation is required to meet employer's standards?
C. How long does it take? What does it cost? What does it include?
D. What kind of high school or college program should precede entrance? What subjects should or must be chosen?
E. What provision for apprenticeship or other training on the job? Is experience of some kind a prerequisite to entrance?

6. ENTRANCE

A. How does one get his first job? By taking an examination, by applying to employers, by joining a union, by requesting with employment agencies, by saving capital, and opening his own business, and how much capital is required?

7. EARNINGS

A. What are the most dependable average figures in earning by week, month or year?
B. What is the range of the middle fifty percent (50%)?
C. Are the earnings higher or lower in certain parts of the U.S. or in certain branches of the occupation?
D. What proportion of workers advance with increases in pay? To what and how much?
E. After how long and what additional preparation and experience?

8. NUMBER AND DISTRIBUTION OF WORKERS

A. Are the owrkers evenly distributed in proportion to population or concentrated areas? Where and why?
B. Can a person practice this occupation anywhere that he may wish to live? Do conditions differ in small towns and rural areas from those in urban centers?

C. Are most of the workers employed by private industry, by government, by some kind of organization, or are they self employed?
D. Are the employing organizations large or small? If so, how large or small?

9. ADVANTAGES AND DISADVANTAGES

A. What do workers like best and dislike most about their jobs?
B. Are the hours regular or irregular, long or short? Is there frequent overtime or night work, Sunday or holiday work?
C. What about vacations, maternity leave?
D. Is the employment steady, seasonal or irregular? Does one earn more or less with advancing age?
E. Are skills acquired transferable to other occupations?
F. Is the work hazardous? What about accidents, diseases, etc.?
G. How will work affect the family of the worker?
H. In comparison with other occupations requiring about the same level of ability and training, in what way is this one more or less attractive?

Sources:

1. Occupational Information, Robert Hoppock, 3rd edition, McGraw Hill Book Co, San Francisco, 1967.
2. American Vocational Journal, The Job as Textbook, Elaine Uthe, Jan. 1971, p. 76.
3. Guidance, Program Development and Management, 2nd Edition. Herman J. Peters, and Bruce Shertzer, Charles E. Merrill Publishing Co., Columbus, Ohio, 1968.

(APPENDIX L)

ERIC DOCUMENTS

AVAILABLE TO ALL TEACHERS

ED 012 934 (2 cards) — Project P.A.C.E (Preparing. Aspiring. Career Exploration) Goff, William and others. Dayton City School District, Ohio. Pub date: 30 Jun 67 70P.

ED 033 397 (1 card) — Elements in the prescriptive phase of a comprehensive quidance system. Jones, G. Brian. American Personnel and Guidance Ass'n., Washington, D.C.; Office of Education (DHEW), Washington, D.C. Apr 69 17P.

ED 013 456 (3 cards) — Developmental career guidance in action, the first year. Leonard, Geroge E., Wayne State Univ., Detroit, Mich. 158P.

ED 011 296 (1 card) — Vocational Core Program. By Manzanares, Jess & Barnes, Bill, New Mexico State Dept. of Education, Santa Fe, 1966 20P.

ED 026 527 (1 card) — A pilot project for vocational guidance in economically underdeveloped areas. Miller, Carroll H., Illinois State Office of the Superintendent of Public Instruction, Springfield Dept. of Guidance Services. 68 48P.

ED 021 289 (2 cards) — Multi-occupations at Harkness Center. Progress report no. 1. Board of Cooperative Education Services, Buffalo, N.Y. Harkness Center. Spons. agency: New York State Education Dept., Albany. 1 Jan 68 79P.

ED 033 403 (1 card) — Room to grow. Something special for all kids. Platt, Allen H. Philadelphia School District, Pa. 1969 7P.

ED 024 755 (1 card) — Project Pit. A summer industrial work experience and occupational guidance program, Wayne State Univ., Detroit, Michigan Dept. of Industrial Education. Spons. agency: Detroit Public Schools, Mich 67 35P.

ED 033 200
(1 card)

Standards for associate degree occupational therapy assistant program. American Occupational Therapy Association, New York, N.Y. Jul 67 18P.

ED 033 254
(1 card)

Intensive high school occupational guidance approaches for initial work and technical school placement. Miller. Eric Clearinghouse on counseling and personnel services, etc. Spons. agency: Off. of Educ., etc. Nov 69 15P. OEC-3-6-002487-1579-(010).

ED 033 255
(1 card)

Orientation approaches to increase student awareness of occupational options. Sloan. Eric Clearinghouse on counseling and personnel services, Mich. Spons. agency: Off. of Educ., etc. BR-6-2487. Nov 69 16P. OEC-3-6-002487-1579-(010).

ED 034 061
(1 card)

Intensive training for job entry skills. A selected bibliography for use in program dev. Information series - analysis paper No. 1. McCracken, David. Ohio State Univ., Columbus, Center for Vocational and Tech. Education. Office of Ed. (DHEW), Wash., D.C. Nov 69 15P.

ED 012 059
(1 card)

High School orientation program. A four-phase program of school cooperation. By Robinson, Leland R. California State Dept. of Education, Sacramento. Pub. Date 66 11P.

ED 010 892
(1 card)

Illustrative action programs. By Roggencamp, Janice. Illinois State Off. Supt. Pub. Instr., Springfield. 1966 13P.

ED 023 494
(1 card)

The Lincoln Project. A study of the educational program of a junior high school in a transitional neighborhood. A report of the Lincoln Guidance Res. Project. Segel, Ruble. Albuquerque Public Sch., N. Mexico., etc. 62 44P.

ED 020 554
(3 cards)

Trial and testing of an experimental guidance curriculum. Final report. Sherman, Vivian S. American Inst. for Research in Behavioral Sciences. Dec 20, 1967. 136P.

ED 010 626
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(APPENDIX M)

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3.	James Fitzpatrick	Supervisor Guidance
4.	Flora Martin	Supervisor Home Economics
5.	Clark Fowler	Assistant Director, Basic Skills
6.	Dean Lindahl	Supervisor Title I
7.	Mike Bullock	Assistant Director Vocational Education
8.	Alve Thomas	Assistant Director, Basic Skills
9.	Del Gustin	Supervisor, Vocational Guidance
10.	Ralph Mikkleson	Supervisor T & I
11.	Earl Barlow	Supervisor Indian Education
12.	Dave Kaul	Supervisor Elementary Education
13.	Alan Anderson	Supervisor Special Needs
14.	Harold Rehmer	Supervisor Title III
15.	Ted Clark	Program Officer Title I
16.	Don Campbell	Program Officer Title I

(APPENDIX N)

COMMUNITY ADVISORY COMMITTEE ROSTER

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American Smelting & Refining
300 South Montana Ave.
East Helena, Montana 59635

Mr. Dix C. Shevalier
Division Manager
Montana Power Company
Helena

Dr. Les Eddens, Director
Diagnostic & Remediation Center
Sunhaven School
Helena

Mrs. Stanley Van Diest
1509 Gallatin
Helena

Mr. Robert Thielen
1719 Townsend
Helena

Mrs. Vicki McLucas, Bus Agent
Local #612 Hotel & Restaurant Employees
Box 955
Helena

Mr. Vern Brown
[illegible]
Helena

Mrs. Robert Clausen
3990 McHugh Lane
Helena

Mr. Don Fredrikson
Advertising Manager
Union Bank & Trust Co.
Helena

Mr. Charles McCarthy
Social Service Coordinator
Model Cities Office
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Mr. Dave Kneedler
705 Rhode Island
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1207 Winne
Helena

Mrs. Donald Pullin
327 Broadway
Helena

Mrs. Art Whitney
2010 Jerome Place
Helena

Mr. Ray Moore
920 Mill Road
Helena

Jerry McGuire
1300 Flowaree
Helena

Mr. Peter Sullivan
5 Washington Place
Helena

Mr. Gene Huntington
324 Fuller Ave.
Helena

Mr. Don Henderson
1600 Illinois
Helena

Mr. Ben Ulmer, Director
Vocational & Occupational Skills
Department of Public Instrusction
State Capitol Bldg.
Helena

Mr. Harold Rehmer, Supervisor
ESEA Title III
Department of Public Instruction
State Capitol Bldg.
Helena

Mr. Larry Roberts
Governor's Camps Representative
Employment Security Commission
P. O. Box 1728
Helena

Mr. Roger Steraland
Helena Industries
1325 Helena Ave
Helena

(APPENDIX N)

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2.	George Allen	Penneys Department St.	442-7230
3.	Maxine Homer	Health Department	449-3444
4.	Don Larson	Jorgensons Inn & Food	442-6380
5.	Bob Morgan	Forest Service	442-9040
6.	Bob Cooney	Fish & Game	449-2535
7.	Judy Carlson	Model Cities	442-5850
8.	Orval Mix	Mix's 76 Station	442-4476
9.	Don Engle	Jaycees	442-7695
10.	Russ Alm	Union Bank	442-5050
11.	C. E. Skeets Houtchens	Welfare Department	449-3434
12.	Bob Tubbs	Tubbs Grocery	442-1250
13.	Ace Kindrick	Painters Union	442-1708
14.	Rev. Bill Burkhardt	Pastor	442-9883
15.	Dick Porte	Engineer-Cairds	442-7957
16.	Glen Drake	Senator-Lawyer	442-0230
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18.	C. J. Seifert	Globe Clothing	442-2490
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25.	Jack Walsh	St. Hyw. Department	449-2492
26.	John Morrison, Jr.	Architect	442-3060
27.	Dr. Kent Boughn	Radiologist	442-1275

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30.	Jack Naegele	Nagele Inc.	442-9400
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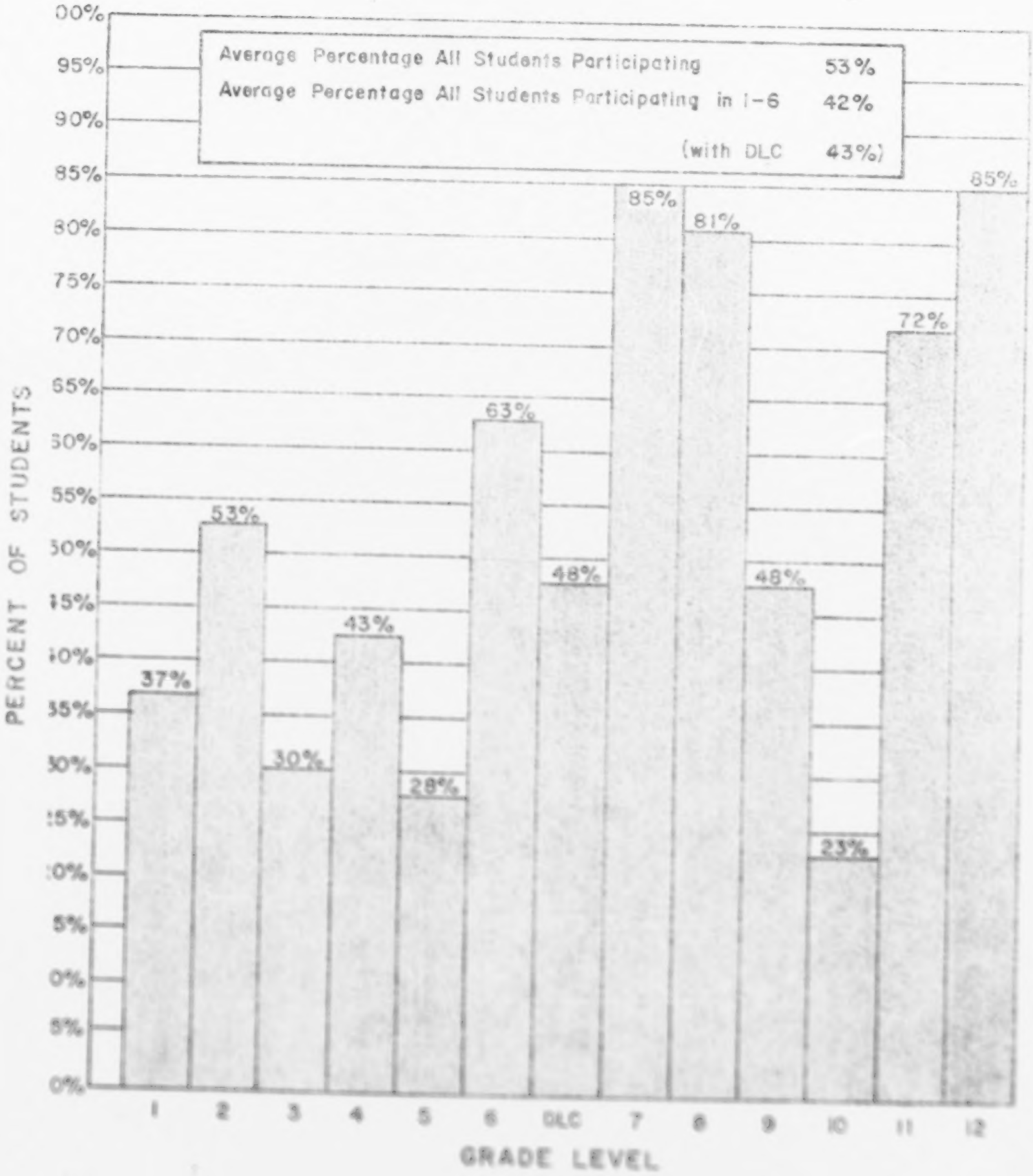
32.	Jeff Morrison	School Board	442-2190
33.	Elmer Hausken	School Board	442-8319
34.	Harvey Demars	School Board	442-1927
35.	Bill Schmidt	School Board	442-5520
36.	Bob Pennignton	Am. Bldg. & Loan	442-3080
37.	Jim Murrey	AFL-CIO	442-1708
38.	Paul Reber	Plumbing	442-4660
39.	John Fistad	Flooring	442-5501
40.	Lois Deford	Hosp. Adm. Shodair	442-1980
41.	Frank Kamlowsky	Mt. Bell Tele.	449-3286
42.	Bill Leaphart	School Board	442-4930
43.---54		State Dept. Staff	
55.	Art Hall	Deaconess Home	442-7920

(Appendix C)

STUDENT POPULATION IN CAREER EDUCATION
Survey Date October 1, 1971



(Appendix P)

SCHOOL DISTRICT ADVISORY COMMITTEES

Homer V. Loucks
Charles P. Johnson
Archie H. Lucht
Louis O. Strand
Einar Brosten
Bernie Hartman
Gary Ryti
John Wenger
Warren Morehouse
Dale Moore
Tom Miller
Henry Jorgenson

COUNSELORS

James Van Meter
Sandy Steward
Warren Ruetten
Sharon Tomcheck
Glen Barrows
Harley Iverson
Dale Johnson
Bess Eggum
Harold Olson
Kathryn Megard
Bob Rieman
Margaret Rienhart
Pat O'Leary

BUILDING REPRESENTATIVES

Hawthorne
CRA
Central
Broadwater
Smith
Ray Bjorke
Jefferson
May Butler
Rossiter
Lincoln
Bryant
Junior High
Sunhaven
Senior High
Vo-Tech Center
Marge Hiner
Patrick Feely
Sunny Rae Mandeville
Bessie Hawkes
Lennice Traweek
Gary VanGerpen
Jackie Carlin
Alice Shy
Marion Pope
Jean Miller
Catherine Cooper
Roy Kallin
Glen Thomas
Terry Beaver
Charles Stalnaker

(APPENDIX Q)

CAREER EDUCATION UNITS

Produced Under Project

GRADE LEVEL	TITLE	AUTHOR	SCHOOL
1	Weather Bureau	Leanne Wolverton Bernice Bradham	Lincoln Elementary
1	Forest Conservation	Fern Cooper	Central
1	Home & School Helpers	Ruth Rollins	Ray Bjorke
2	Plant Unit	Shelia Bieber	Rossiter Elementary
2	Dairy	Ann McCormick	Central
2	Fireman	Ann McCormick	Central
1 - 2	Construction	Shirley Olson Schneider	Jefferson
3	Vocations	Dyan Prowell	Lincoln
3	Clothing Industry	Tina Veroulis	Bryant Elementary
3	Ecology	Bonnie Hawthorn	Rossiter
3	Occupational Survey	Dyan Prowell	Lincoln
3	Water Conversation	Tina Veroulis	Bryant
4	Hospital Related Jobs	Rita Shute	Bryant Elementary
4	Building a Store	Mrs. Pope	Rossiter Elementary
4	Transportation Workers	Pat Griffin Vida Larson	Ray Bjorke Elementary
3 - 4	Conservation	Lucille Nyberg	Lincoln Elementary
6	Goodies Around the Globe	Gladys Pearce Jackie Carlin Darrel Dorsch	Jefferson
4 - 5 - 6	Protective Services	Diane Carpenter	University of Georgia
4 - 6	Aviation	Traweek & Johnson	Smith School
4 - 6	Telephone	Pace	Central
4 - 6	Weather	Edith Jorgenson	Bryant
1 - 2	Post Office	Kathy Estill	Mt. View Elementary
1 - 2	Television Variety Program	Kathy Estill	Mt. View Elementary

GRADE LEVEL	TITLE	AUTHOR	SCHOOL
4 - 5 - 6	Puppetry	Bonnie K. Smith	Wlizabeth
3 - 4	Ecology	Carolyn Orr	Blackwell Elementary
4 - 5	Meal Planning & Food	Essie Bilbeck	Cobb County
4 - 5	Interior Decorating	Sarah Harold	Hawthorne
5 - 6	Construction of Horizontal Bars for the playground	Bonnie Ball	Blackwell
4 - 5 - 6	Ecology	Edith Jorgenson	Bryant
4 - 5 - 6	Photography	Jane Durden	Cobb County
4 - 5 - 6	Newspaper Industry	Ann Tipton Ardela Jennings L. W. Brunett	Cobb County
5	The newspaper Industry	Lucill Light	Lincoln Elementary
6	Banking	Margaret Hayes	Bryant
6	Rocketry	Earl Olson	Brodwater

* Sample Units given to the Helena School District by the Cobb County District, Marrietta, Georgia.

(APPENDIX R)

INSTRUCTIONAL MATERIAL

1.	Manpower & Economic Education	Joint Council on Economic Education 1212 Ave. of the Americans New York, N. Y. 10036
2.	Occupational Outlook Handbook	Superintendent of Documents U. S. Government Printing Office Washington, D. C. 20402
3.	Set Readings Interpersonal	McGraw-Hill Book Company Division of McGraw-Hill Inc. P. O. Box 402 Hightaville, N. J. 08520
4.	"The World of Work"	The Lesslie Press 111 Lesue Street Dallas, Texas 75207
5.	Set #549 Basic Economics	The Instructor Publications, Inc. Instructor Park Dansville, N. Y. 14437
6.	"Occupational Outlook Handbook"	Superintendent of Documents U. S. Government Printing Office Washington, D. C. 20402
7.	Occupational Information in the Elementary School (Professional Resource Text) Author: Willa Norris Code 5-77	Science Research Associates, Inc. 259 East Erie Street Chicago, Illinois 60611
8.	Occupations & Careers (Textbook)	McGraw-Hill Book Company 8171 Redwood Highway Novato, California
9.	Life Career Game # WP3253	Social Studies School Service 10000 Culver Blvd. Culver City, California 90230
10.	Economic System Game #WP3252	Social Studies School Service 10000 Culver Blvd. Culver City, California 90230
11.	Consumer Game # WP 3250	Social Studies School Service 10000 Culver Blvd Culver City, California 90203
12.	Multi-Media Kit "Smart Spending" #0F15	Social Studies School Service 10000 Culver Blvd. Culver City, California 90230

FILMSTRIPS and FILMS

1. (1) set K-3 World of Work (WOW)	Denoyer-Geppert Co. P. O. Box 93550 Chicago, Illinois 60690
2. (1) set 4-6 World of Work (WOW)	Denoyer-Geppert Co. P. O. Box 93550 Chicago, Illinois 60690
3. Microfiche Film	ERIC Document Reproduction Service The National Cash Register Company 4936 Fairmont Avenue Bethesda, Maryland 20014
4. 7 V-30H Sony 1/2 inch Video Tape Twelve (12) tapes per carton	Electronics Distributors, Inc. P. O. Box 1475 320 Sixth St. South Great Falls, Montana
5. Sound Filmstrips "U. S. Economy"	Social Studies School Service 10000 Culver Blvd. Culver City, Calif. 90230
6. Sound Filmstrips "Protecting the Service"	Social Studies School Service 10000Culver Blvd. Culver City, Calif. 90230
7. Sound Filmstrip "Four who Quit"	Guidance Associates Pleasantville, New York 10570
8. Sound Filmstrip"Dropping out-Road to Nowhere #N-10103	Guidance Associates Pleasantville,New York 10570
9. Sound Filmstrip "Preparing for the World of Work" A-N103901	Guidance Associates Pleasantville, New York 10570
10. Sound Filmstrip "What you Should Know Before you go to Work" #N-10b-102	Guidance Associates Pleasantville, New York 10570
11. Sound Filmstrip "Preparing for the Jobs of the 70's" #N-103-802	Guidance Associates Pleasantville, New York 10570
12. Sound Filmstrip "Choosing your Career" #N-100-683	Guidance Associates Pleasantville,New York 10570
13. Sound Filmstrip "Automation: Promise or Threat" N-400 - 802	Guidance Associates Pleasantville, New York 10570
14. Movie "Of Time, Work, and Leisure" # ES-713 (Rental)	Net Film Service Indiana Univereity Audio-Visual Center Bloomington, Indiana 47401

EQUIPMENT

1. Model AV#3600 Video Tape Recorder	Electronics Distributors, Inc. P. O. Box 1475 320 Sixth St. South Great Falls, Montana
2. Model #AV/AVC 3400 Rober II Video Portable	Electronics Distributors, Inc. P. O. Box 1475 320 Sixth St. South Great Falls, Montana
3. 3. Model #CUM 192U Video Monitor	Electronics Distributors, Inc. P. O. Box 1475 320 Sixth St. South Great Falls, Montana
4. Model # CVA-1 Recoridng Adapter	Electronics Distributors, Inc. P. O. Box 1475 320 Sixth St. South Great Falls, Montana
5. 3-M Brand Executive I Microfilm Reader Printer	3-M Business Product Sales, Inc. 126 West Broadway Butte, Montana 59701

TESTS and INVENTORIES

1.	California Study Guide Kit W-61	Western Psyhological Services 12031 Wilshire Blvd. Los Angeles, Calif. 90025
2.	Interest Inventory for Elementary Grades CP-3 Kit	Western Psyhological Services 12031 Wilshire Blvd Los Angeles, Calif. 90025
3.	Vocational Planning Inventories SRA Speciment Set 7-6709 High School	Science Research Associates 259 East Erie Street Chicago, Illinois 60611
4.	Kuder Vocational Preference Record	Science Research Associates 259 East Erie Street Chicago, Illinois 60611